














MONTHLY **CURRENT** **AFFAIRS** **MAGAZINE** **JULY 2022**

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SOCIETY AND SOCIAL JUSTICE

1. NATIONAL FOOD SECURITY INDEX

Why in news?

Union Food Minister released the first State Ranking Index (SRI) for implementation of the National Food Security Act (NFSA), 2013.

More on News

- Odisha, Uttar Pradesh and Andhra Pradesh secured the top three positions in the Index.
- Tripura, Himachal Pradesh and Sikkim obtained the top positions among the special category states (north-eastern, Himalayan, and Island states).

Other key initiatives for improving quality of higher education in India

- **National education Policy (NEP) 2020:** It aims at making “India a global knowledge superpower” through a comprehensive overhaul of the education sector.
- **SWAYAM-** India’s own MOOCs platform offering free online courses on almost all the disciplines.
- **Higher Education Financing Agency (HEFA), 2018,** a joint venture of MoE and Canara Bank aims to leverage funds from the market, donations, and CSR funds to be used to finance improvement in infrastructure in top institutions.
- **Revitalising Infrastructure and Systems in Education (RISE) scheme** funded by HEFA aims at increased investments in research and related infrastructure in premier educational institutions.
- **Prime Minister’s Research Fellows (PMRF) Scheme** to enhance the quality of technical research.
- Attracting international faculty through schemes like **GIAN (Global Initiative of Academic Networks)** and **VAJRA (Visiting Advanced Joint Research)**.
- **Study in India program** seeks to endorse India as a prime education hub for international students.

Parameters on which State Ranking Index is based:

- **Coverage of NFSA, rightful targeting,** and implementation of all provisions under NFSA.
- **Analysis of the delivery platform** while considering the allocation of foodgrains, their movement, and last-mile delivery to Fair Price Shops (FPS).

About National Food Security Act (NFSA), 2013:

- Enactment of National Food Security Act, (NFSA) 2013 marked a **paradigm shift** in the approach to food security from **welfare to rights-based approach**.
 - ✓ NFSA envisages using the existing platform of Targeted Public Distribution System (TPDS) for foodgrain distribution.
 - TPDS (1997) is the revamped Public Distribution System (PDS) to target poor households.
- NFSA’s objective is to provide for food and nutritional security in human life cycle approach, by ensuring access to adequate quantities of quality food at affordable prices to people to live a life with dignity.
- It is now implemented in all 36 states/ UTs covering about 81 crore persons.

Key features of NFSA:

Provisions	Details
Entitlement of foodgrains	<ul style="list-style-type: none"> • Subsidised Foodgrains will be made available to eligible households at subsidised prices of Rs. 3/2/1 per kg for rice, wheat and coarse grains respectively. <ul style="list-style-type: none"> o These are called central issue prices (CIPs)
Coverage of population	<ul style="list-style-type: none"> • NFSA gives legal entitlement to 75% of rural and 50% in urban population (67% of the population) to receive highly subsidized foodgrains under TPDS on the basis of Census 2011 population estimates. <ul style="list-style-type: none"> o Under the Act, eligible households comprise of two categories – Antodaya Anna Yojana (AAY) Households and Priority Households (PHH). ✓ Entitlement of foodgrain: 35 kg per AAY Household per month, and 5 kg per PHH Person per month.

Identification of Household's Maternity entitlements	<ul style="list-style-type: none"> • Pregnant women and lactating mothers will be entitled to receive maternity benefits of not less than Rs. 6,000. • Pregnant women and lactating mothers and children (6 months-14 years) entitled to meals as per prescribed nutritional norms under Integrated Child Development Services (ICDS) and Mid Day Meal (MDM) schemes.
Food Security allowance	It is given to entitled beneficiaries in case of non-supply of foodgrains.
Reforms in TPDS	Centre and State to progressively undertake reforms like end-to-end computerisation of TPDS, leveraging Aadhaar for unique identifications etc.

Issues and challenges:

- **Identification of beneficiaries:** Current NFSA and TPDS is **criticised for their urban bias, inclusion and exclusion errors** and poor performance in targeting beneficiaries such as homeless, migrants, tribals etc.
- **Leakages and diversion:** Evaluation studies conducted by Department of Food & Public Distribution, has pointed out **leakages, pilferages, and diversions of food grains at almost every point of the Supply Chain** i.e., right from allocation to the storage in State Godowns and up to their final distribution to beneficiaries through FPS.
 - ✓ There are **losses during transportation of foodgrains** due to theft, multiple handling, spillages etc.
- **Inadequate storage infrastructure:** After foodgrain procurement by FCI, lack of adequate infrastructure and unscientific management has **led to wastage of foodgrains** (infestation by fungus, rodents etc.)
 - ✓ Also, there is a **wide regional disparity in storage infrastructure** with the majority of storage capacity being located in large procurement states like Punjab, Haryana, Andhra Pradesh etc.
- **Huge fiscal burden:** Government pays a subsidy of about Rs. 1.70 lakh crore annually for providing subsidized foodgrains to 67% of the population under NFSA. Also, the government **has not revised the CIPs** or subsidised prices of foodgrains.
 - ✓ **Additional allocation under PM-Garib Kalyan Ann Yojana** was borne by

Centre, which further increased the burden.

- **Lack of updation of beneficiaries:** The number of NFSA beneficiaries was frozen in 2013. However, given the population increase since then, there have been demands to update the list by ensuring an annual updating system under NFSA.
- **Limited to cereal security:** Foods covered in the Act are mainly rice and wheat and does not cover pulses, vegetables, meat etc.
- **Inflationary pressure on food items:** Continuous and augmented procurement of foodgrains by government results in lesser amount available for Open markets sale, thus increasing its price.
- **Issues with Digitisation:** **Cumbersome process of digitisation, Aadhaar seeding** and biometric authentication for availing foodgrains has **left out illiterate poor, tribals and women in farflung areas** with limited internet connectivity.
- **Others:** Unavailability of foodgrains in FPS, non-affordability of foodgrains by poor, lack of quality food grains etc.

Way forward

- **Scientific identification of priority households** with a target of zero exclusion error.
- **Unique identification of target beneficiaries with information technology support** to prevent bogus beneficiaries and prevent leakages.
- Agricultural and biotechnological interventions for sustainable increase in production of food grains and for improving quality with advanced post-harvest technology.
- **Augmentation of storage capacity by developing silos, cold storage chain** and indigenous methods of storage of foodgrains along with training and education on waste reduction programmes.
- **Diversification of food under NFSA** to include millets, pulses and milk products.
- **Reduction of national rural and urban coverage ratio** (from existing 75-50 to 60-40) as **suggested by NITI Aayog** to reduce the fiscal burden.
 - ✓ **Revision of CIPs as recommended by Economic Survey 2020-21.**
- **Scheme of cash transfer of food subsidy** directly into the bank account of beneficiaries instead of providing foodgrains can be **expanded to reduce physical movement of foodgrain**, reducing leakages etc.
 - ✓ Presently it is **implemented on a pilot basis in three UTs of Chandigarh,**

Puducherry, and Dadra and Nagar Haveli (urban areas)

2. Intellectual Heritage in Development

The Union Education Ministry is planning to create an “Intellectual Heritage in Development” — a dialogue, documentation and research programme on the Government’s initiatives.

Intellectual Heritage in Development

- The project aims to create an ‘Intellectual Heritage’ in Development, Knowledge Resource and making New India, based on the government’s initiatives.
- Under this project, few of the themes based on the initiatives of various Ministries/ Departments of the Government have been identified.
- The plan is to hold about 100 conferences across the country on 100 themes during the three months.
- On these themes, dialogues, documentation, research and publication will be planned and organized in various academic institutions.
- In these conferences, research papers based on secondary data and sources available in ministries or elsewhere will be presented.
- Researchers belonging to reputed Higher Education Institutions will contribute to these papers, which will eventually be published in a book.

Some Of The Focus Areas Identified By Ministry

Economic Reforms and Emerging Global Economy	The Finance Ministry and related ministries to focus on: India becoming the fastest growing economy, expanding markets beyond borders, record-breaking export year, GST, making India an investment-friendly destination, transparency in procurement, Atmanirbhar Bharat, etc
India’s great cultural heritage: Bhavyata and Divyata	The Culture Ministry to focus on <ul style="list-style-type: none"> ▪ bringing our culture history back home, ▪ tribute to India’s great freedom fighters, ▪ Statue of Unity, Kranti Mandir (Red Fort), ▪ Jallianwala Bagh Samarak and ▪ 150th birth anniversary of

	Mahatma Gandhi. The project also refers to restoring historical sites, including Ram Janmabhoomi temple and Somnath temple, among others.
Tech-Powered India: Transforming Work, Empowering People	IT Ministry to conduct research on: <ul style="list-style-type: none"> ▪ Harnessing IT for Good Governance’ and ‘Jeevan Parmaan Patra’, ▪ ‘Ayushman Bharat Digital Mission’, ▪ Atma Nirbhar India through Unified Payment Interface’ (UPI), ▪ UMANG (Unified Mobile App for New age Governance).
Education Ministry	The Education Ministry’s initiatives to be highlighted include: <ul style="list-style-type: none"> ▪ National Education Policy and Samagra Shiksha (National Education Mission), ▪ NIPUN Bharat/ National Achievement Survey (NAS), ▪ Higher Education Financing Agency, ▪ National Initiative for School Heads and Teachers Holistic Advancement (NISHTHA), ▪ Scheme for Higher Education Youth in Apprenticeship and Skills (SHREYAS), ▪ Rashtriya Uchchatar Shiksha Abhiyaan (RUSA) and PM-eVidya.
Sports Ministry, Social Justice Ministry and Tribal Affairs Ministry	<ul style="list-style-type: none"> ▪ The Social Justice Ministry is to focus on “Empowering Divyangs UDID (Unique ID for Persons with Disability). ▪ The focus in sports will be on Sports Ministry programmes such as Fit India and SPOT Scholarships. ▪ The Tribal Affairs Ministry is to highlight “Restoring Janjatiya Gourav through Heroes, Histories”, “Eklavya

	Model Residential School” and scholarships.
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3. Mission Vatsalya

The Ministry of Women and Child Development (MWCD) recently issued new guidelines for the 'Mission Vatsalya' Scheme in order to lay out a future roadmap for child protection.

Background

- Integrated Child Protection Scheme (ICPS) was implemented by the Ministry since 2009-2010.
- The scheme was then renamed as “Child Protection Services (CPS)” Scheme in 2017.
- The CPS Scheme has been now subsumed under Mission Vatsalya from 2021-22 onwards.

Key Highlights Of The New Guidelines

- The guidelines elaborate on the vision for "Vatsalya Sadan," with a specific focus on "Juveniles in Conflict with the Law."
 - ✓ Vatsalya Sadan is an Integrated Home Complex of Child Care Institutions (Children Home, Observation Home, Special Home, Place of Safety).
 - ✓ Juvenile Justice Board and Child Welfare Committee are also located within the same premises.
- The new guidelines include promoting **family-based non-institutional care** for children in difficult situations, as well as the establishment of "Cradle Baby Reception Centres" for receiving abandoned babies vulnerable to trafficking.
 - ✓ Cradle Baby Reception Centres shall be fully equipped to care for infants in at least one specialised adoption agency (SAA) per district.
 - ✓ Their objective shall be to rescue the abandoned children and look after them till they are adopted.
- It makes no mention of the existing helpline number (1098-Childline) or its future. It, however, states that "Mission Vatsalya," in collaboration with states and districts, will implement a 24x7 helpline service for children.
 - ✓ This helpline service will be integrated with the Ministry of Home Affairs' Emergency Response Support System 112 (ERSS-112) helpline.

- **States will have to retain the official name**, as given by the Centre to get benefits under this scheme.
- **Funds to states** will be approved through **Mission Vatsalya Project Approval Board (PAB)**, which will be chaired by the WCD Secretary.
- At state level, there will be a **committee headed by the Chief Secretary** to monitor, review and promote convergence in the implementation of the scheme.
- States/UTs have also been directed to focus (through educators, therapists) on **special needs children in child care institutions (CCI)**, as they are unable to attend school due to physical or mental disabilities.
- The new guidelines **define the role of District Magistrate**, who will be responsible for ensuring execution of the mission at the district level.

4. Youth in India 2022 report

As per the “Youth in India 2022” report, India’s favourable demographic dividend is at an inflection point, with the population share of the youth starting to taper off. Demographic dividend occurs when the proportion of working people in the total population is high. This report has been released by the Ministry of Statistics and Programme Implementation.

Who Are Youths?

- There is no universally agreed international definition of the youth age group.
- United Nations defines ‘youth’ as those persons between the ages of 15 and 24 years.
- In India, as per National Youth Policy-2003, ‘youth’ was defined as a person of age between 13- 35 years.
- But in National Youth Policy 2014, persons between the age group of 15 and 29 years are considered youth.

Key Highlights Of The Report

- The youth in the age group of 15-29 years comprise 27.2% of the population for 2021, which is expected to decrease to 22.7 by 2036.
 - ✓ The total youth population from 333.4 million in 2011 is projected to reach 371.4 million by 2021.
 - ✓ Thereafter, the number will decrease to 345.5 million by 2036.

• **Share of the elderly is expected to increase** during 2021-2036.

- ✓ The proportion has increased to 9.2% in 2016 and is projected to reach 14.9% in 2036.
- ✓ States such as Kerala, Tamil Nadu and Himachal Pradesh are projected to see a higher elderly population than the youth by 2036.

• **Projections for states:** Bihar and Uttar Pradesh experienced a rise in proportion of youth population to total population till 2021 and then it is expected to start declining.

- ✓ These two states, along with Maharashtra, Madhya Pradesh and Rajasthan, are projected to have 52% of the country's youth.

5. Draft National policy on PwD

Why in news?

Recently, the Ministry of Social Justice and Empowerment has released the draft of the national policy for persons with disabilities for public comments.

About Draft National policy on PwD

- It seeks to replace the **National Policy on Disability, 2006**.

About PwDs in India

- PwDs means a **person with long term physical, mental, intellectual or sensory impairments** which hinders his or her full and effective participation in society.
- According to Census 2011, there are **2.68 crore PwDs in India** which accounts for 2.2% of India's population.
 - ✓ 36% of total PwDs are employed (male- 47%, female-23%).
- As of now, there are **four major national legislations which deal with PwDs**, viz;
 - ✓ Rehabilitation Council of India Act, 1992
 - ✓ National Trust for the Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities Act, 1999
 - ✓ Rights of Persons with Disabilities Act, 2016
 - ✓ Mental Healthcare Act, 2017 implemented by Ministry of Health and Family Welfare.
- The **principle of the draft policy** is to showcase the **Government's commitment to the inclusion and empowerment of PwDs** by providing a mechanism that ensures their full participation in society and

helped them to lead **productive, safe and dignified lives**.

- **Draft policy is needed due to multiple factors including:**

- ✓ Signing of **United Nations Convention on Rights of Person with Disabilities (UNCRPD)** by India in 2007.
- ✓ Enactment of **Rights of Persons with Disabilities (RPD) Act, 2016** which increased the number of disabilities from seven conditions to 21.
- ✓ **Adoption of National Education Policy 2020** which promotes inclusive education.
- ✓ India is a party to the **'Incheon Strategy for Asia Pacific Decade for PwDs, 2013-2022'** prepared under aegis of **United Nations Economic and Social Commission for Asia and Pacific (UNESCAP)**.
 - It identifies **10 goals for Asia-Pacific countries** to ensure the inclusion and empowerment of PwDs in conformity with Sustainable Development Goals (SDG) 2030.

- **Key provisions in the policy**

Specifications	Detail
Comprehensive National Programme on prevention of disability	• To take care of entire gamut of disabilities covered under RPD Act, and other medical conditions which are considered as risk cases that may manifest into any form of disability.
Early identification and intervention	• One-third of most disabilities in children being preventable, if detected early.
Cross Disability Early Intervention Centres (CDEICs)	• CDEICs in every district to provide facilities like screening and identification and referral for rehabilitative services . • EICs would be given access to Unique Disability Identification portal for helping parents for assessment and certification of disability.
Certification	• Hassle free certification of Disability based on disabilities covered by RPD Act, 2016.
Education	• States/UTs should add provision on compliance with RPD Act when granting permission/recognition to educational institutions.

National level employment portal	• Portal for PwDs will be developed with information like skill training in different locations, vacancies, eligibility, recruitment, etc.
Dedicated disability sports centers	• In each zone with state of art facilities for training PwDs and encouraging Paralympic games at district, state and national levels.
Transportation	• Guidelines on necessary modifications in personal vehicles used by PwD will be issued by Ministry of road transport and highways.
Fine Art	• Department of Culture should develop a scheme to encourage fine arts and performing arts among PwDs.
Self-reliance	• While emphasizing on research, it calls for promoting Atmanirbhar Bharat in Disability Sector for manufacturing assistive devices.
Health	• Ayushman Bharat-PMJAY should be aligned with objective of the RPwD and provide universal coverage for PwDs.
Disability Data Management	<ul style="list-style-type: none"> • The Government is already implementing Unique Disability ID Card project to create a national database for PwDs. <ul style="list-style-type: none"> o The database should be linked with all service delivery mechanisms through appropriate Application Programming Interface (API) integration in the near future. o All schemes and programmes meant for individual citizens should capture disability disaggregated data on disability.

Research and Development	• Developing low cost, indigenous aids and assistive devices for which Artificial Limbs Manufacturing Corporation of India (ALIMCO) should play a lead role.
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Measures to be taken

- **Increase participation:** Few States have begun the initiative at local levels to increase participation. For instance, **Chhattisgarh started the initiative of nominating at least one disabled person** in each panchayat.
 - ✓ If a disabled person is not elected then they are **nominated as a panchayat member** as per changes in the law concerned.
- **Capacity building:** Building the capacity of disabled people's organisations and empowering their members through training in the electoral system, government structure, and basic organizational and advocacy skills.
- **Rights-based approach:** There is need to **move away from the 'charity-based approach' to the 'rights-based approach'** as significant proportion of people see a PwD as an object of 'sympathy' and 'pity' thereby leading to their treatment as a third class citizen.
- **Coordination:** Central and State governments must work together with other stakeholders to provide adequate data on disabled persons, employment, education to PwDs and Make the Right Real etc.
 - ✓ There is also a need to **synergize the Policy with the international instruments** namely, UNCRPD, Incheon Strategy, SDGs and new domestic laws.
- **Increase awareness:** Mutual respect and understanding contribute to an inclusive society. Therefore, it is vital to **improve public understanding of disability, confront negative perceptions, and represent disability fairly**.
 - ✓ For example, education authorities should ensure that schools are inclusive and have an ethos of valuing diversity..

ECONOMY

1. PMFME SCHEME

Why in news?

PMFME Scheme of Ministry of Food Processing Industries, under Aatma-nirbhar Bharat Abhiyan completed two years.

About PMFME

- It is a centrally sponsored scheme to provide financial, technical and business support for upgradation of existing micro food processing enterprises.
- **Objective of the scheme:**
 - ✓ Capacity building of entrepreneurs through technical knowledge, skill training and hand holding support services;
 - ✓ Increased access to credit to existing micro food processing entrepreneurs for technology upgradation;
 - ✓ Support to Farmer Producer Organizations (FPOs), Self Help Groups (SHGs), Producers Cooperatives & Cooperative Societies along their entire value chain to enable microenterprises to avail common services.
 - ✓ Support for transition of existing enterprises into formal framework for registration under regulatory framework and compliance;
 - ✓ Integration with organized supply chain by strengthening branding & marketing
- It is being implemented over a period of five years from 2020-21 to 2024-25 with an outlay of Rs 10,000 crore.
- Expenditure is to be shared in 60:40 ratio between Central and State Governments, in 90:10 ratio with North Eastern and Himalayan States, 60:40 ratio with UTs with legislature and 100% by Centre for other UTs.
- **Key features of the scheme**
 - ✓ About 2 lakh FME will be given direct financial assistance in the form of credit linked subsidy.
 - ✓ Existing Individual micro food processing units desirous of upgradation of their unit can avail creditlinked capital subsidy @35% of the eligible project cost with a maximum ceiling of Rs.10 lakh per unit.

- ✓ Seed capital @ Rs. 40,000/- per SHG member would be provided for working capital and purchase of small tools.
- ✓ FPOs/ SHGs/ producer cooperatives would be provided credit linked grant of 35% for capital investment along the value chain.
- ✓ Scheme also places thrust on waste to wealth products, minor forest products and Aspirational Districts.
- ✓ Union Bank of India is the nodal bank for its implementation.
 - o Micro food processing units in the informal sector are also eligible for support under the scheme.
- ✓ Envisages training for Entrepreneurship Development Skilling (EDP+) program modified to meet the requirement of food processing industry and product specific skilling.

About Food Processing Sector in India

- Food processing is defined as transforming agricultural products into food that are in consumable form or transforming one food item into another by adding value to it.
- It has two sub-categories, viz,
 - ✓ manufactured processes, where physical properties of product are transformed into edible products with commercial value
 - ✓ value-added processes like increased shelf life, shelled and ready for consumption, etc.
- **Status in India**
 - ✓ India's food processing sector is one of the largest in the world and its output is expected to reach \$535 bn by 2025-26.
 - ✓ During the last five years ending 2019-20, food processing sector has grown at an average annual growth rate of around 11.18% and may touch \$470 bn by 2025.
 - ✓ India is ranked 1st Producer & Exporter of spices in the world.
 - ✓ India is ranked first in the production of milk, pulses and jute, second in fruits and vegetables and third in cereals (Government of India, 2019)

- ✓ The total FDI received in the food processing sector since April 2000 till March 2022 was **\$11.08 Bn.**

Significance of the sector

- **Enhance farmer's income** by better utilization and value addition of agricultural produce.
- **Minimize wastage at all stages** in the food processing chain by the development of infrastructure for storage, transportation and processing of agro-food produce.
- **Introduce of modern technology** into the food processing industries from both domestic and external sources;
- **Provide policy support for creation of Infrastructure**, capacity expansion/ Upgradation and other supportive measures form the growth of this sectors;
- **Promote export of processed food products.**
- **Recognising the immense potential of FPI** in promoting inclusive growth, it has been identified as one of the key thrust areas under the 'Make in India' Programme.

Challenges prevailing in the food processing sector

- **Formalisation of the section:** Unorganized food processing sector **comprises nearly 25 lakh units** which contribute to 74% of employment in food processing sector.
 - ✓ **Nearly 66% of these units are located in rural areas and about 80% of them are family-based enterprises.**
- **Lack of credit support and technology:** It includes lack of access to modern technology & equipment, training, access institutional credit, lack of basic awareness on quality control of products; and lack of branding & marketing skills etc.
- **Infrastructure inadequacies:** Lack of efficient supply chain infrastructure and **inadequate cold chain capacity** have been identified as main reasons for higher wastages, higher cost of production, lower value addition in food processing sector.

Other Steps taken by the Government

- **Pradhan Mantri Kisan SAMPADA Yojana (PMKSY):** It is a comprehensive scheme for creation of modern infrastructure with efficient supply chain management from farm gate to retail outlet.
- **Production Linked Incentive Scheme for Food Processing Industry (PLISFPI):** It aims to support creation of global food manufacturing champions

commensurate with India's natural resource endowment and support Indian brands of food products in the international markets.

- **Bureaucratic hurdles:** Presently, multiple clearances are required like availing permission for **Change in Land Use (CLU)**, **environmental clearance** etc are **time consuming and costly.**
- **Demand Supply Mismatch:** Inadequate linkage of processors, exporters and bulk purchasers with farmers **result in mismatch between requirements of industry and supply of agri-produce by farmers.** The problem is further compounded by **restrictions on commodity storage and movement.**
- **Competition:** There is huge competition from global leaders. Also, frequently changing nature of global laws on food production compounds the problem.

Way forward

- **Infrastructure Development:** Incentivize **creation of supply chain infrastructure for food processing sector and strengthen Farm-Gate Infrastructure** which would help in augmenting raw materials to the processors and realization of higher income by the farmers.
- **More development of Food parks:** where state governments would allot land, to promote agri & food processing industry as well as extend incentives.
- **Creation of food safety infrastructure:** by **setting up of new and modernization of existing laboratories.**
- **Fiscal Incentives:** Like incentives for supporting creation of infrastructure, and **capital investment subsidy** for setting up new food processing units and technology up gradation of existing units etc.

2. BIOECONOMY REPORT 2022

Why in news?

The Biotechnology Industry Research Assistance Council (BIRAC) recently released **India's Bioeconomy Report 2022.**

More about the news

- The **Special Biotech Ignition Grant Call for Northeast Region (BIG-NER)** under BIRAC was

also launched and financial support of Rs 50 lakhs each to 25 start-ups and entrepreneurs from Northeast Region to develop biotech solutions was announced.

What is Bio-Economics?

According to United Nations Food and Agriculture Organisation (FAO), bioeconomy is the production, utilization, conservation, and regeneration of **biological resources, including related knowledge, S&T, and innovation, to provide sustainable solutions** (information, products, processes, and services) within and across all relevant sectors and enable a transformation to a sustainable economy. Some of the major areas of Bio-economics include-

- **Food systems** occupy the largest niche in the bioeconomy which includes sustainable agriculture, sustainable fishing, forestry, and aquaculture.
- **Bio-based products** include **bioplastics, biodegradable clothing**, and other products with eco-design.
- **Bioenergy** improves the security of **energy supply and reduces energy** dependence like biomass.

Status of India's Bioeconomy

- **Bioeconomy Market:** It continued to nearly account for a **2.6 percent share of India's GDP in 2021**. The sector registered **14% growth over 2020**.
 - ✓ Nearly a fifth of BioEconomy has been due to the Covid-19 vaccination and testing drive.
- **Sectoral Distribution:** BioPharma accounts for the largest share of the Bioeconomy (49 percent).
 - ✓ The Bio-industrial segment's contribution to the Bioeconomy witnessed 202 percent growth in 2021.
- **Innovation:** At least **three biotech startups** were incorporated every day in 2021.
- **Foreign direct investment (FDI)** in biotech is estimated to have touched **\$830 million in 2021**.

Challenges associated

- **Food vs fuel:** A bioeconomy implemented on a large scale could create competition for limited agricultural land and water resources.
- **Higher cost:** Bioeconomy would require significant investment to transform production processes and products. For example, developing infrastructure capacity to exploit the bioenergy ecosystem.
- **Carbon dioxide emission:** A shift towards a bioeconomy could release additional carbon emissions in several cases, such as direct and indirect land-use change (for instance deforestation).

- **Regulatory Authority:** The Biotechnology Regulatory Authority of India Bill which envisions creating a **Regulatory body for the uses of biotechnology products** including genetically modified organisms is still pending.
- **Intellectual Property Right regime:** There are two main areas of contention for the industry in India's approach to intellectual property in the biotech sector:
 - ✓ **Section 3(d) of the Patents (Amendment) Act, 2005:** It sets a **higher standard for patentability** than mandated by **TRIPS (Trade Related Intellectual Property Rights)**. The industry argues that India's stricter standards for patents discourage innovation and dampen foreign investment.
 - ✓ **Compulsory licensing:** It gives the government **power to suspend a patent** in times of health emergencies. Although India has used this option only once, the industry feels that such regulations keep investors clear of Indian markets.
- **Lack of Marketization:** Most of the early research funding, often provided by universities or the government, **runs out before the marketization phase**, the funding for which is mostly provided by venture capitalists. This gap has a huge impact on the commercialization of innovative ideas.

Government initiatives to promote bioeconomy:

- **National mission on Bioeconomics** was launched by the Institute of Bio-resources and Sustainable Development (IBSD) under the Ministry of Science and Technology. The aim of the mission was to boost rural economy by utilizing bio resources.
- **National mission on biofuels (2009)** by Ministry of New and Renewable Energy in order to promote biofuels in the country.
- **Production linked incentives:** The PLI scheme for biopharma has introduced various incentives to promote self-reliance in local manufacturing of bulk drugs, while also encouraging the

biopharma industry to move up the value chain through innovation.

- **National Biotechnology Development Strategy 2015-2020 (NBDS):** NBDS was launched in 2015 (as a successor to National Biotechnology Development strategy (2007)) with an aim of **establishing India as a world class bio manufacturing hub.**
- **Promotion of Biotechnology in Northeastern Region of India:** In 2009-10 DBT had also set up a Northeastern Region Biotechnology Program Management Cell (NER-BPMC) for coordinating and promoting the biotechnological activities in the NER with annual investment of 180 crores.

Way forward

An appropriate bioeconomic strategy requires developing an action plan **involving local government, state governments, national governments** as well as **other market players.**

- **Increased investment in research, innovation, and training:** Research on bioeconomy issues and their application tends to be disconnected. To avoid this, public-private partnerships should be promoted.
- **Strengthening policy coordination and engagement:** Increasing synergies and coherence between bioeconomy-related policies, initiatives, and economic sectors is essential.
- **Building human capital:** There is a need for the development of specialized human resources along with increasing the number and quality of jobs offered by this sector.
- **Ecosystem of innovation:** With the growing convergence of disciplines it is important for the Universities to evolve an ecosystem in which scientists, innovators, and future entrepreneurs could be nurtured.
- **Swifter implementation of coordinated** policies for the regulation of the sector.
- **Improving markets and competitiveness** by providing the knowledge base needed to make the different sectors of the bioeconomy more

sustainable, as well as boosting the development of clean energy

3 . Angel funds

- The *International Financial Services Centres Authority (IFSCA)* has issued a regulatory framework for **Angel funds** under the *IFSCA (Fund Management) Regulations, 2022.*
- The move intends to implement the IFSCA mandate to develop and regulate financial products, financial services, and financial institutions in the International Financial Services Centres (IFSC)
 - ✓ **Angel Funds** bridge the gap between start-ups and angel investors, who are instrumental in providing mentoring, and resources to the start-ups.

Features Of The Framework

- A *Fund Management Entity (FME)* in IFSC will be able to launch Angel Funds by filing a placement memorandum with the Authority under a Green Channel.
- This means the schemes can open for subscription by investors immediately upon filing the placement memorandum with the IFSCA.
- Angel Funds shall accept investments from accredited investors or investors who are willing to commit at least \$40,000 over a period of 5 years.
- Angel Funds are permitted to invest in start-ups as well as other regulated angel schemes in IFSC, India, and foreign jurisdictions upon receiving consent from the desirous investors.
- Although investments by an Angel Fund in a start-up is capped at \$1,500,000, the Angel fund will be permitted to invest in *subsequent rounds of fundraising by the start-up* in order to protect its shareholding from dilution.

4 . Remittance Of India

The first WHO “*World report on the health of refugees and migrants*” was released.

Key Findings

- In 2021, India was the top remittance recipient (\$87 billion nearly 2. 75% of GDP) among low- and middle-income countries.
 - ✓ It recorded a marginal decline of 0.2% in 2020 and a growth of 8% in 2021.

✓ For India, remittances peaked at 4% of GDP in 2009.

- Remittances in India were way ahead of China and Mexico's 53 billion\$, the Philippines (36 billion\$) and Egypt (33 billion\$) - the other four countries in top five.
- The **United States** was the **largest source country** for remittances, followed by the United Arab Emirates, Saudi Arabia and Switzerland.
- In many low- and middle-income countries, migrants stepped up their support to families back home, especially to countries affected by the spread of the COVID-19 Delta variant.
- In most other areas, remittances have also recovered strongly, registering growth of 5-10% in Europe and Central Asia, the Middle East and northern Africa, southern Asia and sub-Saharan Africa.
- The key contributing factors are the willingness of migrants to support their families in times of need, together with the fiscal stimuli and employment support programmes implemented in the United States and European destination countries.
- In the Gulf Cooperation Council countries and the Russian Federation, the recovery of outward remittances was also facilitated by stronger oil prices and the resulting pickup in economic activity.
- As per an **RBI article** remittances from the US (23% of total inward remittances in 2020-21) have surpassed that of UAE (17-18%)

State-wise share

- The share of the traditional remittance recipient states of Kerala, Tamil Nadu and Karnataka, has almost halved in 2020-21.
 - ✓ These states had strong dominance in the Gulf countries.
- These states accounted for only 25% of total remittances in 2020-21 compared to over 42% in 2016-17.
- Now, Maharashtra has emerged as the top recipient state surpassing Kerala.
 - ✓ Maharashtra now accounts for almost 35% of the total remittances in 2020-21.

Significance of Remittance

- It is a sum of money sent to another party, usually in another country.
- It is an important and positive economic result of migration for migrants themselves and for family and friends remaining in their home countries.
- It accounts for a large fraction of the global movement of funds. Despite predictions that

remittances would fall due to COVID-19, remittances proved to be resilient.

- It now stands at more than threefold above official development assistance and are more than 50% higher than FDI, excluding in China.

5. Primary Agricultural Credit Societies (PACS)

- Cabinet Committee on Economic Affairs (CCEA) recently approved a proposal to digitize around 63,000 Primary Agricultural Credit Societies (PACS).
- PACS will be digitized at a cost of ₹2,516 crore. Each PACS will get around ₹4 lakh to upgrade its capacity and even old accounting records will be digitized and linked to a cloud-based software.
- This software will be in vernacular language having flexibility of customisation as per the needs of the states.

Advantages of PAC	Challenges of PAC
<ul style="list-style-type: none"> • It helps the farmers to get credit for agricultural purpose at their place. • It helps in promoting <i>savings habits</i> among its members. • It helps in implementing any government schemes which are related to farmers at their level and also to observe whether these schemes are attaining their intended purpose or not. 	<ul style="list-style-type: none"> • Organizational weakness: Though PACS covers the major portion of the villages, still villages in the northeastern states are not covered. • Over dues: The larger overdues come from landowners rather than small cultivators, implying that a few farmers who are relatively stronger in the village took unfair advantage of these PACS. • Lack of resources: The PACS's resources are far too limited in relation to the rural economy's short- and medium-term credit needs. This is largely due to insufficient funds provided by higher level funding agencies.

Need for Digitization of PACS

- The other two tiers -- StCBs and DCCBs have already been automated by the NABARD and brought on Common Banking Software (CBS).

- However, majority of PACS have not been computerized and still function manually resulting in inefficiency and trust deficit.
- In some of the states, standalone and partial computerization of PACS has been done. There is no uniformity in the software being used by them and they are not interconnected with the DCCBs and StCBs.

Benefits of Digitization

- Computerization of PACS will increase their transparency, reliability and efficiency, and will also facilitate the accounting of multipurpose PACS.
- It will help PACS to become a nodal centre for providing various services such as Direct Benefit Transfer (DBT), Interest Subvention Scheme (ISS), Crop Insurance Scheme (PMFBY), and inputs like fertilizers & seeds.
- The move will also help to generate around 10 jobs in each centre.

6. Windfall Tax

The government slapped an export tax on petrol, diesel and jet fuel (ATF) shipped overseas, and imposed a windfall tax on crude oil produced locally.

- A windfall tax is a tax levied by governments against certain industries when economic conditions allow those industries to experience above-average profits.
- The idea is to target firms that were lucky enough to benefit from something they were not responsible for - in other words, a windfall.
- In other words, windfall tax is imposed on companies that have seen their profits extraordinarily not because of any clever investment decision or an increase in efficiency or innovation, but simply because of favourable market conditions.

7. RDSS-REVAMPED DISTRIBUTION SECTOR SCHEME

Why in news?

Recently, **Ministry of Power launched RDSS.**

About RDSS

- It aims to **improve the operational efficiencies and financial sustainability of all DISCOMs/ Power Departments excluding Private Sector DISCOMs.**
- It **provides result-linked financial assistance to DISCOMs** for strengthening of supply infrastructure based on meeting pre-qualifying criteria and achieving basic minimum benchmarks.
- **Its objectives include:**
 - ✓ Reduction of **Aggregate Technical & Commercial (AT&C) losses to pan-India levels of 12-15% by 2024- 25.**
 - ✓ Reduction of **Average Cost of supply (ACS)- Average Revenue Realised (ARR) gap to zero by 2024-25.**
 - ✓ Developing **Institutional Capabilities for Modern DISCOMs.**
 - ✓ Improvement in the **quality, reliability, and affordability of power supply to consumers** through a financially sustainable and operationally efficient Distribution Sector.
- **Existing schemes will be subsumed** including Integrated Power Development Scheme (IPDS), Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) along with Prime Minister's Development Program (PMDP)- 2015 for the Union Territories of Jammu & Kashmir (J&K) and Ladakh.
- **Rural Electrification Corporation (REC) and Power Finance Corporation (PFC) have been nominated as nodal agencies.**
- **Other Features of the scheme**
 - ✓ **Result-linked financial assistance** for strengthening of supply infrastructure.
 - ✓ **State specific action plan** rather than a "one-size-fits-all" approach.
 - ✓ **Solarization of agricultural feeders** to improve electricity supply to farmers and **converges with the Pradhan Mantri Kisan Urja Suraksha Evam Utthan Mahabhiyan (PM-KUSUM) Scheme.**
 - ✓ **Prepaid Smart metering to be implemented** in Public-Private-Partnership (PPP) mode
 - ✓ **System metering** at Feeder and Distribution Transformer (DT) level in PPP mode.
 - ✓ **Leveraging Artificial Intelligence** and **consumer empowerment** by way of prepaid Smart metering.
 - ✓ **Provision for Special Category States** in terms of extra grant for smart metering projects.

Major Components of the scheme

- **Consumer Meters and System Meters**

- ✓ Prepaid Smart Meters for all consumers except Agricultural consumers
- ✓ Special prioritization to urban areas i.e. approx. 10 crore prepaid Smart meter installation by 2023, the balance to be taken up in phases.
- **Feeder Segregation**
 - ✓ Scheme focuses on funding for feeder segregation for unsegregated feeders, which would enable solarization under KUSUM
 - ✓ Solarization will lead to cheap/ free day time power for irrigation and additional income for the farmers.
- **Modernization of Distribution system in urban areas**
 - ✓ Supervisory Control and Data Acquisition (SCADA) in all urban areas.
- **Rural and Urban area System strengthening**

About DISCOMS Sector in India

- There are **three primary segments in the electricity sector: generation, transmission and distribution.**
 - ✓ **Generation** is the process of producing power using different fuels and is carried out in generating stations (generation plants).
 - ✓ **Transmission** utilities carry bulk power from the generation plants to the distribution substations through a grid and at high voltages.
 - ✓ **Distribution** utilities supply electricity from the substations to individual consumers through a distribution network.
- The third stage which involves the **distribution of power to all the consumers across the country** is where the DISCOMs come into the picture.
 - ✓ DISCOMs in UTs are administered directly by the central government while the **respective state governments govern those in the states.**
 - ✓ **Private DISCOMs are also operational in India** but are limited to a few cities.
- Under the Indian Constitution, **power is a Concurrent subject** and the responsibility for distribution and supply of power to rural and urban consumers rests with the states.
- One of the key issues with the power sector **currently is the poor financial situation of state DISCOMS.**
 - ✓ This has been **affecting their ability to buy power for supply**, and the ability to invest in improving the distribution infrastructure.
 - ✓ Consequently, this **impacts the quality of electricity that consumers receive.**
- **Present status of DISCOMS**

- ✓ State-owned discoms across the country are **financially and operationally beleaguered despite four reform schemes in the past 15 years.**
- ✓ According to Niti Aayog's report of August 2021, **most power DISCOMs incur losses every year the total loss was estimated to be ₹90,000 crore in the financial year 2021.**

Challenges faced by DISCOMS

- **High level of aggregate technical and commercial (AT&C) losses:** These losses stem from poor or inadequate infrastructure or on account of theft or bills not being generated or honoured.
 - ✓ As per Ujwal Discom Assurance Yojana (UDAY) dashboard data, **AT&C losses currently stand at 21.7% at the all India level. In UK and US, it is about 6-7%.**
- **Impact of Covid-19:** The Covid-19 pandemic further distressed discoms where **sharp downturn in demand from highpaying Corporates & Industries customers** during the lockdown negatively impacted the discoms' finances.
- **Delays in tariff determination:** Despite the Centre's prescription for annual or periodical revision of retail power tariff, there has been delay in tariff determination by the states.
- **Power Procurement Cost Optimisation:** Discoms have **oversubscribed to expensive and long-term thermal Power Purchase Agreements (PPAs)** based on incorrect estimates of power demand.
 - ✓ This has led to a **high cost of power, insufficient investment in infrastructure, and payment delays to generators.**
- **Upgrading Distribution Infrastructure:** Many loss-making discoms are unable to invest in the upgradation and maintenance of their equipment due to lack of resources.
- **Lack of progress in earlier initiatives:** The government, under various regimes, has tried to improve the condition of DISCOMs in India through relief packages. For eg- under UDAY programme, state governments took over 75% of DISCOMS' debt, issuing low-interest bonds to service the rest of the debt.

Way forward

- **DISCOM Restructuring**
 - ✓ Insulating regulatory functions from political pressures by **creating regional electricity regulatory commissions with participation of central government.**

- ✓ **Higher private participation for greater efficiency.** For ex: Franchise models implemented in Odisha and Maharashtra.
- ✓ **PPP model can be useful in loss-making areas,** where commercial operation might not be feasible without government support.
- **Renewable Energy (RE) Integration Reforms:** Discoms may need to **deploy large-scale energy storage** by providing battery systems or pumped hydro-storage systems.
 - ✓ **Mini-grids** with decentralised small-scale generation from locally available RE sources **for remote and sparsely populated areas.**
- **Strengthen the RDSS scheme:** This can be done by:
 - ✓ **Addressing states' concerns about insufficient resources.**
 - ✓ **Centre can help states prioritise power dispatch from more efficient** (and less-polluting) thermal power plants.
 - ✓ **Central and state-level committees and agencies need to work together** to scrutinise the feasibility of discoms' action plans and project reports.
 - ✓ **Adopt a systemic deployment strategy for smart metering infrastructure.**

8. Open Acreage Licensing Programme (OALP)

- The Ministry of Petroleum and Natural Gas recently launched the **eighth round** of bids under the Open Acreage Licensing Programme (OALP), offering 10 blocks for international competitive bidding.
- Till now, 134 Exploration & Production blocks have been awarded comprising 2,07,691 sq.km. of area spread across 19 sedimentary basins.
- Bid Round-VIII would add a further 36,316 sq. km of Exploration Acreage and cumulative exploration acreage under OALP regime will increase to 2,44,007 sq. km.

Hydrocarbon Exploration and Licensing Policy (HELP)

- India imports more than 80% of its crude oil requirements, which makes the country heavily dependent on foreign sources of supply.
- This leads to a huge financial burden on the country, apart from subjecting the country to global swings in crude oil price.

To address these concerns, the HELP was launched in **2016**. HELP replaced the New Exploration Licensing Policy (NELP) of 1997-1998. HELP had **2 key drivers**, both were launched in 2017:

- ✓ **Open Acreage Licensing Programme (OALP)**
- ✓ **National Data Repository (NDR)**
- HELP's objective is to increase India's indigenous oil and gas production by maximising the potential of hydrocarbon resources in India.
- It aims to increase investment in the energy and petroleum sector and provide operational flexibility to the investors.

Provisions under HELP

- **Single license** that covers exploration and production of all types of hydrocarbon viz. conventional & unconventional resources eg oil and gas, coal-bed methane, shale oil, gas hydrates, etc.
- **Open Acreage Licensing Programme (OALP)**
 - ✓ Under NELP, the bidders could choose only from the blocks offered by the government and had to wait for the government to undertake bidding for blocks which were of interest to the bidders.
 - To address this issue, the government introduced **OALP under HELP**.
 - ✓ OALP gives investors the freedom to carve out blocks of their choice after assessing Exploration & Production data available at **National Data Repository** and submit an **Expression of Interest (EoI)**. EoI can be submitted *thrice a year* without waiting for a formal bid round from the government.
 - ✓ These blocks are later offered through a biannual (twice a year) formal bidding process. The entity offering the maximum share of oil and gas to the government is awarded the block.

Benefits of OALP	Concerns Related to OALP
<ul style="list-style-type: none"> • <i>Removing red-tapism:</i> It has reduced multiple licences for extracting different hydrocarbons even from the same well. • <i>Brought in a quantum jump in the Exploration & Production</i> sector by the successful roll-out of the HELP regime, 	<ul style="list-style-type: none"> • <i>Lesser involvement of Private Players:</i> Public Sector Companies like ONGC and Oil India (OIL) are the major winners of the bidding rounds. • <i>Less Participation of Foreign Companies:</i> Indian attempts to attract Foreign Energy

followed by OALP Bid Rounds	Giants are not yielding expected results.
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- **Revenue Sharing Model**

- ✓ Under NELP, contracts were based on the concept of **profit sharing** where profits are shared between the Government and the contractor after recovery of cost.
- ✓ Under the profit sharing methodology, it became necessary for the Government to examine cost details of private participants and this led to many **delays and disputes**.
- ✓ Under the **revenue sharing model of HELP**, the government is not concerned with the cost incurred in the process and directly receives a share of the gross revenue from the sale of oil, gas etc.
- ✓ This model is **simpler and easy to monitor**, as the government has to monitor only two parameters, revenue and production of the contractor.

- **Financial Incentives under HELP**

- ✓ To encourage exploration in deep water and ultra-deep water areas, **royalty rates have been reduced** and a **graded system of royalty** has been introduced, in which royalty rates decrease from shallow water to deep water and ultra-deep water.
- ✓ **Exemptions:** The royalty is **exempted for the first seven years** and subsequently royalty of 5% and 2% is applicable in deep water and ultra-deep water areas.
- ✓ Exemption of custom duty applicable on equipment/ services for exploration and production activities.
- ✓ Marketing and pricing freedom for crude oil and natural gas produced from these blocks.

- **National Data Repository (NDR)**

- ✓ NDR is the backbone of HELP. It provides data to contractors that they can analyse & bid for particular blocks in which they are interested.
- ✓ The data presented through NDR is obtained through advanced technology simulations which makes it more reliable

9. Legal Metrology Rules 2022

- The Department of Consumer Affairs recently released the **Legal Metrology (Packaged Commodities), (Second Amendment) Rules 2022**.
- The amendment has allowed the electronic industry to declare some mandatory details on the label

through QR (Quick Response) code, for a period of one year, if not declared in the package itself.

- Earlier, all the pre-packaged commodities including the electronic products were required to declare all the mandatory declarations as per the Legal Metrology (Packaged Commodities), Rules 2011 on the package.
- The option is given for one year because the government is trying to use the technology for the first time on a **pilot basis** and will decide to extend it based on the feedback.
- It will allow important declarations to be declared effectively on the label in the package while the other descriptive information can be conveyed to the consumer through the QR Code.
- Information that can be displayed through QR codes include details such as address of the manufacturer or packer or importer, the common or generic name of the commodity, the size and dimension of the commodity and customer care details.

Previous Amendment In November 2021

1. The Department of Consumer Affairs has omitted **Rule 5** of the Legal Metrology (Packaged Commodities), Rules 2011 to safeguard interest of consumers.

✓ **Rule 5** defines the Schedule II prescribing the **pack sizes of various types of commodities**.

2. Companies selling packaged commodities with a quantity of **more than one kilogram** are required to print 'unit sale price' per kg along with its maximum retail price (MRP).

3. Rule regarding mentioning of quantity on a packaged commodity was amended.

✓ Now the quantities can be expressed in terms of *number or unit or piece or pair or set or such other word* which represents the quantity in the package.

✓ Earlier Quantity should either be in 'number' or 'unit'

4. **Date Declaration** has now been required to month & year in which pre-packed commodity is manufactured.

5. **Declarations of MRP** has been simplified by removing illustration and providing for making the mandatory declaration of MRP in Indian currency inclusive of all taxes.

10. Jagriti

- The Department of Consumer Affairs (DoCA) has launched a mascot, '**Jagriti**', to empower consumers and generate awareness of their rights.
- Jagriti would be projected as an **empowered consumer**, who spreads awareness regarding consumer rights and addresses solutions to the issues they face.
- The mascot will be shown along with tagline “Jago Grahak Jago” in all the media campaigns.

Objective

- Through Jagriti, DoCA aims to strengthen its consumer awareness campaign presence in digital and
- Reinforce a young empowered & informed consumer as a top-of-mind consumer rights awareness recall brand.

Awareness Themes

The mascot would generate consumer awareness on the following **themes**:

Hallmark: A hallmark is an **official mark** or series of marks struck on items made of metal, mostly to **certify the content of metals**—such as platinum, gold, silver.

11. Zero Coupon Zero Principal instruments(ZCZP)

- The Finance Ministry has declared *zero coupon zero principal (ZCZP) instruments* as securities for the purposes of the Securities Contracts (Regulation) Act, 1956.
- ZCZP is an instrument issued by a not-for-profit organisation - that will be registered with the social stock exchange - to raise funds.

ZCZP Structuring

- With its zero-coupon, zero-principal structure, it resembles a debt security like a bond. When an entity takes a loan by issuing regular debt security like a bond, it has to make interest payments and the principal when the bond matures.
- But with ZCZP, when an entity issues these securities and raises money, it is not a loan but a donation.
- So, the borrowing entity **does not have to pay interest**—therefore zero coupon—and it **does not have to pay the principal** (zero principal) either.

- Like any other debt instrument, it will come with a **time duration**, and will carry a tenure equal to the duration of a given project.

Benefits

- There have been concerns around lack of transparency in the way donations are used by these (non-profit or for-profit social) enterprises.
- The organisations listed on the exchange will need to do regular audits of social impact and these will be disclosed to all stakeholders.
- Also, if an organisation issues these instruments and has few subscribers, it can be a warning for other donors.

Zero-coupon bond: It is a debt security that does not pay interest but instead trades at a deep discount, rendering a profit at maturity, when the bond is redeemed for its full face value.

12. Trade In Rupee

The RBI, recently, announced its decision to allow trade settlements between India and other countries in rupees, with immediate effect.

Current System

- Till now, if a company exports or imports, transactions are always in a foreign currency - excluding with countries like Nepal and Bhutan.
- So, in case of imports, the Indian company has to pay in a foreign currency - mainly dollars and could also include currencies like pounds, Euro, yen etc.
- The Indian company gets paid in foreign currency in case of exports and the company converts that foreign currency to rupee since it needs rupee for its needs, in most of the cases.

Background

- The current move comes amid increasing pressure on the Indian currency, as the rupee continues to depreciate due to a strengthening dollar.
- Moreover, high crude prices widened India's trade deficit to record highs of \$25.6 billion in June.
- With imports being strengthened through domestic demand and exports likely to decline due to risks of a global slowdown and recent correction in commodity prices, India's current account deficit is expected to remain at 3%.
- Further, capital outflows are likely to continue due to the continuing global monetary policy tightening and flight to safety, which will put more pressure on the rupee.

New Mechanism

- Under this mechanism, Indian exporters and importers can use a **Special Vostro account** linked

to the foreign *correspondent bank of the partner country* for receipts and payments denominated in INR.

- ✓ A **Vostro account** is one opened by a bank in its home country on behalf of a foreign bank.
- **Indian Importers** via this mechanism will make payment in INR which will be credited into the *Special Vostro account* of the correspondent bank of the partner country, against the invoices for the supply of goods or services from the overseas seller.
- **Indian Exporters** via this mechanism will be paid in INR from the balances in the designated Special Vostro account of the correspondent bank of the partner country.
 - ✓ **Indian exporters** may also receive advance payment against exports from overseas importers in INR through the mechanism.
 - ✓ Moreover, before allowing any such receipt of advance payment against exports, Indian banks need to ensure that *available funds in these accounts are first used towards payment obligations arising out of already executed export orders / export payments in the pipeline.*
- However, banks acting as authorised dealers for such transactions would have to take approval from the Foreign Exchange Department of RBI on doing such transactions.

Countries Expected To Use The New Model

- While the RBI order has not clearly said so, this arrangement is likely to be used only with Russia for the time being.
- There are sanctions on Russia post the Ukraine war and the country is *off the SWIFT system* (system used by banks for payments in foreign currency).
- Russia enjoys a *trade surplus* with India and would be *unlikely to prefer payments in currencies such as the dollar or the euro* when it is facing sanctions from the West.
- Opening a rupee account where Russia accumulates trade surpluses with India and using those to *invest in Indian assets in India, may make more sense to Russia.*
- For India, doing business with Russia using rupees would mean there is no hard currency outflow in such transactions.

Benefits

- RBI expects its latest measure to promote growth of global trade with emphasis on exports from India and to support the increasing global interest in the Indian Rupee.
- While the move is seen to benefit trading primarily with Russia, it is also likely to help check dollar

outflow and slow rupee depreciation to a very limited extent.

- If other countries too begin showing interest in using the facility, then a strengthening impact may be seen more quickly for the rupee.
- **Use of Surplus Balance:** Furthermore, it will also facilitate investments in the country as the rupee surplus balance held in the Special vostro accounts may be used by the foreign entities for payments for projects and investments in India.
 - ✓ It can also be used for investment in Indian government treasury bills and government securities.
- The move would also reduce the risk of forex fluctuation specially looking at the Euro-Rupee parity.

Vostro vs Nostro account

- Vostro is a Latin word that translates to “your,” as in “your account.”
- A vostro account is an account a correspondent bank holds on behalf of another bank.
- For example, if a *Spanish life insurance company* approaches a *U.S. bank* to manage funds on the Spanish life insurer’s behalf, the account is deemed by the holding bank as a vostro account of the insurance company.
- From the foreign correspondent bank’s point of view, funds held on behalf of other banks are referred to as vostro accounts and are denominated in the **local currency**.
- From the perspective of domestic banks, the funds deposited at correspondent banks are referred to as **nostro accounts**. Nostro accounts are denominated in the **foreign currency** of the correspondent bank.

13. Build-Operate-Transfer (BOT) Model

The National Highways Authority of India (NHAI) is in the process of offering at least two highway upgradation projects to private players, using the build-operate-transfer (BOT) model.

Background

- The current decision comes after funding highway projects through *public money* for a good part of the last decade.
- The BOT (toll) model was the preferred model for road projects, accounting for 96% of all projects awarded in 2011-12, but this progressively reduced to zero.

- When the interest in BOT projects started to reduce, road construction shifted to the traditional *engineering, procurement and construction (EPC)* mode.
- Over the last few years, especially since the onset of the pandemic, the NHAI resorted to offering projects under the *Hybrid Annuity Model (HAM)*.

Public-Private partnership (PPP) Model

- These are agreements between public and private entities, in which the private entity is hired by the public body and is remunerated on a performance basis.
- They are typically long-term arrangements (for a 20-30 years term), whose rationale is to combine the capabilities of the public and private sector to achieve optimal results.
- Some of the important types of PPP contracts are **BOT**, Build-Own-Operate (BOO), Build-Operate-Own-Transfer (BOOT), Buy-Build-Operate (BBO).

Build-Operate-Transfer (BOT) Model

- A BOT contract is a model used to finance large projects, typically infrastructure projects developed through **public-private partnerships (PPP)**.
- Under it, a private player is granted a contract to finance, build and operate a project for a specified period of time (20 or 30 year concession period).
- During this period, the developer can recover its investments through user charges or tolls charged from customers using the facility.
- After the said period, the project is returned to the government or the relevant authority.
- Thus, there is an element of financial risk on the part of the developer to invest through the BOT model.
- The last time NHAI tried to assign road projects through BOT was in 2020.
- As part of the incentives, the government decided to assess the revenue potential of a project every five years during the concession period as against every 10 years earlier.
- This would mean that the concession period (or period till which road developers can collect toll) is extended early in the tenure of the contract, ensuring surety of revenue for the private company.

Engineering, Procurement and Construction (EPC) Model

- EPC is a PPP model for the development of infrastructure projects especially highways. Under EPC, the **government bears the entire cost of the project**.

- Government invites bids for engineering knowledge from the private players. The **private sector's participation** is minimum and is limited to the provision of engineering expertise.
- Procurement of raw material and construction costs are met by the government.
- Although, the contractor is completely insulated from the financial risk, the difficulty of the model is the high financial burden for the government.

EPC vs PPP	
In the PPP model	In an EPC model
<ul style="list-style-type: none"> • While implementing the project, if there is a delay in the project, the private entity will have to fix the problem, which will incur expenditures. • It will now have to submit a new offer to be compensated for the costs incurred and have to deal with the government's slow machinery in order to get the new proposal approved. 	<ul style="list-style-type: none"> • Private party can concentrate on project planning and design, boosting the project's efficiency and significantly reducing the time (avoiding cost overrun) required for completion. • As a result, the EPC is more appealing to the private sector

Hybrid Annuity Model (HAM)

- The Hybrid Annuity Model is a **mix of BOT and EPC models**.
- The government contributes 40% of the project cost in the first five years through annual payments (annuity). The remaining payment is made on the basis of the assets created and the performance of the developer.
- As the government pays only 40%, during the construction stage, the developer has to find money for the remaining amount in the form of equity or loans.
- There is no toll right for the developer. Under HAM, revenue collection is the responsibility of the NHAI.
- As per the government's policy HAM is used in stalled projects where other models are not applicable.

• **Importance**

- ✓ The BOT model hit roadblocks when NPA-ridden banks were suspicious of lending to these projects.
- ✓ HAM is a good trade-off because it spreads risk among developers and the government which reduces overall debt and improves project returns.

14. Steps to prevent the rupee's slide against the dollar ; RBI

The RBI recently announced a series of steps to prevent the rupee's slide against the dollar and boost foreign exchange inflows.

Measures

Exemption from CRR & SLR on Incremental Foreign Currency Non-Resident (Bank) FCNR(B) and Non-Resident (External) Rupee (NRE) Term Deposits

- Currently, banks are required to include all FCNR (B) and NRE deposit liabilities to calculate the *Net Demand and Time Liabilities (NDTL)* for maintenance of statutory requirements such as cash reserve ratio (CRR) and statutory liquidity ratio (SLR).
 - ✓ FCNR(B) are *foreign currency non-resident deposits* (denominated in foreign currency), while NRE deposits are *non-resident external deposits* (rupee denominated)
- Incremental FCNR(B) and NRE deposits raised between 1 July and 4 November 2022, will be exempt from the maintenance of CRR and SLR.

Interest Rates on FCNR(B) and NRE Deposits

- RBI also removed the ceiling on interest rates on FCNR(B) & NRE Deposits between 7 July -31 October.
- These relaxations will allow non-residents to get better returns, attracting foreign funds to the domestic banking system.

External Commercial Borrowings (ECBs)

- The RBI has decided to temporarily increase the limit under the automatic route for external

commercial borrowing (ECB) from US\$ 750 million per financial year to US\$ 1.5 billion.

FPI Investment In Debt

- Currently, all central government securities (G-Secs) with 5-year, 10-year and 30-year tenors are categorized as "specified securities" under the Fully Accessible Route (FAR).
- To increase the choice of G-Secs available for investment by non-resident investors under the FAR, the RBI has been decided that all new issuances of G-Secs of *7-year and 14-year tenors*, will be designated as *specified securities* under the FAR.
- At present, FPI investment in government and corporate debt under the MTF (Medium Term Framework) is subject to a macro prudential short-term limit.
 - ✓ That is, not more than 30% of investments each in government securities and corporate bonds can have a maturity of less than one year.
- It has been decided that investments by FPIs in government securities and corporate debt made till October 31, 2022 will be exempted from this short-term limit.

Foreign Currency Lending

- Further, category-1 banks can utilise *overseas foreign currency borrowing (OFCBs)* for lending in foreign currency to entities for a *wider set of end-use purposes*, except the negative list set out for ECBs.
- The measure is expected to facilitate foreign currency borrowing by a larger set of borrowers who may find it difficult to directly access overseas markets.

POLITY AND GOVERNANCE

1. Cost of Environment Conservation : Report

- NITI Aayog commissioned a report titled '**Economic Impact of Select Decisions of the Supreme Court and National Green Tribunal of India**'.
 - NITI Aayog had commissioned **CUTS (Consumer Unity and Trust Society) International**, a Jaipur-based policy research and advocacy group.

Major Highlights of The Report

- At least **75,000 people were adversely impacted** with around **16,000 workers losing their jobs**, due to five major environment-related judgements.
- **5 judgements By The SC and NGT**,
 - ✓ Stopping iron ore mining in Goa.
 - ✓ Shutting down Sterlite Copper's Tuticorin plant in Tamil Nadu
 - ✓ Halting consultation of Mopa Airport in Goa
 - ✓ NGT sand mining ban case
 - ✓ Halt on construction activities in Delhi-NCR.
- The **industry lost close to Rs 15,000 crore in revenues**, and workers lost around Rs 500 crore of income.
- The **government lost revenue worth Rs 8,000 crore** from mid-2018 to mid-2021.
- If this revenue had been spent as capital expenditure, the economic returns would have been to the tune of Rs 20,000 crore.

Suggestions Given In This Report

- The **judiciary needs to be equipped well to balance economic & ecological interests** of the country.
- For better quality of judges, the **law on National Judicial Commission** could be revived.
- It recommended that **selection procedures of judges should also be changed**.
- **Courts should undertake economic impact analyses facilitated by a group of experts** including economists, environmentalists, and

sociologists, to address and adjudicate public interest cases involving economic sensitive matters.

2. Nupur Sharma Case

The Supreme Court declined a plea by former BJP spokesperson Nupur Sharma to club the hate speech cases filed against her across the country.

Background

- Nupur Sharma has **made 'derogatory remarks' about the Prophet** on a television debate, but later she issued an apology and withdrew her statements.
- Despite that several FIRs were registered against her in many states.

On What Grounds Are Such Cases Clubbed

- **Article 20(2) of the Constitution guarantees the right against double jeopardy (A person cannot be prosecuted more than once for the same offence)**
- Multiple FIRs on the same incident would virtually mean multiple trials. In **T. T. Anthony v State of Kerala, 2001** verdict, the Supreme Court held that there cannot be a "second FIR" on the same issue.
- Approaching the Supreme Court in such situations is a procedural safeguard against excessive litigation.

Plea Bargaining Provision In India

- It is an *agreement in a criminal case in which a prosecutor and an accused arrange to settle the case*. The accused changes his plea from *not guilty to guilty* in return for an offer by the prosecution to a lesser offense or (in the case of multiple offenses) to one or more of the offenses charged in exchange for more lenient sentencing, or a dismissal of other charges
- The **154th Report of the Law Commission was first to recommend the plea bargaining** in Indian Criminal Justice System.
- Section 265A to 265L, Chapter XXIA of the CrPC deals with the concept of Plea Bargaining.

- It was introduced in 2006 as a part of a set of amendments to the CrPC. It was inserted into the Criminal Law (Amendment) Act, 2005.
- The process can be initiated only by the accused. It allows plea bargaining for cases –
 - ✓ Where the maximum punishment is imprisonment for 7 years
 - ✓ Where the offenses don't affect the socio-economic condition of the country
 - ✓ When the offenses are not committed against a woman or a child below 14 are excluded

Arguments In Favour For Plea Bargaining In India	Arguments Against Plea Bargaining In India
<ul style="list-style-type: none"> • Fast disposal of cases • Recording Less serious offenses on one's record - It allows a person to plead guilty or no contest in exchange for a reduction in the number of charges or the seriousness of the offenses. This results in recording less serious offenses on the official court records of an accused. • A hassle-free approach - It allows a person to plead guilty without hiring a lawyer, thus avoiding the hassles that they face when the case remains pending. • It avoids publicity because the longer the case goes the more publicity the accused gets. 	<ul style="list-style-type: none"> • Voluntarily adopted Mechanism which is only entertained when accused opts it willingly. But law is silent on the point that in case, settlement reached is <i>contrary</i> to the purpose of the legal system. • Corruption - The role of victim in this process would attract corruption which is ultimately defeating the purpose which is sought to be achieved by such action. • Independent Judicial Authority - The provisions of Plea Bargaining do not provide for an independent judicial authority to evaluate such applications. • Involvement of Police: As India is infamous for the custodial torture, the concept of Plea Bargaining is more likely to aggravate the situation.

Way Forward

- This is beneficial to the accused and the victim of the crime, **requiring adequate safeguards to prevent potential abuse of the process.**
- It is a **practical vision to overcome overcrowded criminal courts and prisons** and a **potential way to improve litigation efficiency** and rationalize judicial resources, infrastructure and expenses.

3 . Northern Zonal Council on water sharing

The Union Home minister chaired the 30th meeting of the Northern Zonal Council held in Jaipur, Rajasthan.

What are the Issues discussed in the Meeting?

- A total of **47 issues** were discussed at the meeting of which four were identified as important topics at the national level.
 1. **Improving banking services in rural areas**
 2. **monitoring cases of rape and sexual offences against women and children**
 3. **setting up fast track courts for such cases**
 4. **implementing the Direct Benefit Transfer programmes**
- Union home minister said a committee would be formed under the Union home secretary to formulate a strategy to **fight cyber-attacks.**

Functions of Zonal Council: It may discuss, and make recommendations with regard to –

- a. Any matter of common interest in the field of economic and social planning.
- b. Any matter concerning border disputes, linguistic minorities or inter-State transport
- c. Any matter connected with or arising out of the States Reorganisation Act.

Significance of Zonal Councils

- Bringing out **national integration.**
- Arresting the **growth of acute State consciousness**, regionalism, linguism and particularistic tendencies.
- Enabling the **Centre and the States to co-operate** and exchange ideas and experiences.
- **Establishing a climate of co-operation amongst the States** for successful and speedy execution of development projects.
- Being **advisory bodies**, there is full scope for free and frank exchange of views in their meetings.
- They are **regional fora of cooperative endeavour for States** linked with each other economically, politically and culturally.
- They are capable of focusing attention on specific issues taking into account regional factors, while keeping the national perspective in view.

Challenges Faced by Zonal Councils

- The role of zonal councils is **too complicated** due to having the responsibility to maintain peace along with better coordination among all states of India.
- The zonal councils have to **face several issues, when two states have opposite political parties.**

Way Forward

All the **stakeholders should come together** to establish a strong cooperative mechanism for development, for which purpose the regional councils were created. The zonal council should **support the government to develop recommendations for improving public interest.**

4 . Healthy Democracy

- The Chief Justice of India (CJI) stated that **political opposition translating into hostility is not a sign of a healthy democracy.**
- He noted that there used to be mutual respect between the government and the Opposition, but the **opposition space is now diminishing.**

About the Leader of Opposition

- It is the **leader of the largest party in the house,** with at least **one-tenth of the total number of seats.**
- The Salaries and Allowances of Leaders of Opposition in Parliament Act, of 1977 define it as a statutory position.
- The **Chairman/Speaker of the House recognizes the Leader of the Opposition Party.**

Significance Of Leader of Opposition in Parliament

- It plays an important role in **bringing cohesiveness and effectiveness** to the opposition's functioning in policy and legislative work.
- It also helps in **bringing neutrality in the appointments** of institutions of accountability and transparency like CVC, CBI, Lokpal, CIC, etc.
- It is **called the Shadow Prime Minister.** The Leader should be ready to take over if the government falls in any adverse circumstance.
- The Public Accounts Committee, whose chairman is invariably from the opposition party, by which **opposition can check the expenditure of the ruling party.**

Problem With the Weak Opposition

- Due to a weak opposition the **opinion and demands of a large population, who did not vote for the ruling party are left without a solution.**
- Weak opposition parties are always **trapped in clustered forms of representation** which then restrict to certain social groups.

Way Forward

- The **court should act as a check on legislative and executive** excess in a modern democracy. This becomes more important when the opposition is not present.
- The opposition parties **need a sustained perennial campaign and mobilization.**
- The institution of **shadow cabinet can be formed** in India to strengthen the role of the opposition.

5 . Reform on Bail Law

The Supreme Court underlined that there is a pressing need for reform in the law related to bail and called on the government to consider framing a special legislation on the lines of the law in UK.

- ✓ The UK law has provisions for ensuring *legal aid for defendants*. It also recognises a “*general right*” *to be granted bail*. The Act provides specific grounds for rejecting a bail.

Types of Bail in India

- **Regular Bail:** It is generally granted to a person who has been arrested or is in police custody.
- **Interim Bail:** This type of bail is granted for a short period of time and it is granted before the hearing for the grant of regular bail or anticipatory bail.
- **Anticipatory Bail:** It is granted either by session court or High Court. An application for the grant of anticipatory bail can be filed by the person who discerns that he may be arrested by the police for a nonbailable offence.

Constitution Protection Against Indiscriminate Arrest

- **Article 20** – It deals with the protection of citizens in respect of conviction for offences.
- **Article 21** - It states that no person shall be deprived of his life and personal liberty by the State except as per the procedure established by law.
- **Article 22** – It deals with the protection against arrest and detention in certain cases.

Bail Law in India

- The CrPC does not define the word bail but only categories offences under the IPC as bailable and nonbailable.
- The CrPC empowers magistrates to grant bail for bailable offences as a matter of right.
- In case of non-bailable offences, a magistrate would determine if the accused is fit to be released on bail.
- The CrPC also lists provisions for the cancellation of bail.
- The concept of bail emerges to secure personal liberty protected under Article 21 of the constitution, of the person charged with some offense.

General Principle Regarding Bail Law

- Grant of bail in the cases of bailable offences is a right that should be guaranteed to the accused by the magistrate or police.
- Grant of bail in non-bailable offences is a *judicial discretion given to the magistrate* and no power is given to the police in these kinds of cases.
- The accused who has committed the offence which is punishable by death or imprisonment for life, the magistrate has no right to grant bail in those circumstances. But women, a person sick or infirm and children below the age of 16 are excused from the rule.
- The judicial discretion in the cases of bail the appellate court has the massive authority.

Problem In The Indian Bail Law

- In cases involving high-profile individuals, bail is granted without considering the enormity of the case.
- Another major problem in the bail system is the amount of bail bonds set by the court, which at times poor person can't afford.
- The Supreme Court observed that **unwarranted arrests** are carried out in violation of Section 41 (CrPC), which empowers police to arrest without a warrant.

Latest SC Guidelines With Respect To Bail

- **Specific legislation:** Court pointed out that the Government of India may consider the introduction of a separate enactment, in the nature of a **Bail Act** (as in **United Kingdom**) so as to streamline the grant of bails.
- **Bail application:** The court held that there *need not* be any insistence on a bail application while considering the application under certain Sections of the Code.

o These sections relate to **various stages of a trial** where a magistrate can decide on release of an accused.

o The Supreme Court held that in these circumstances, **magistrates must routinely consider granting bail**, without insisting on a separate bail application.

- **Adhering to Timeline:** The Court clearly directed that bail applications ought to be disposed of **within a period of two weeks** except if the provisions mandate otherwise.

o The Court also held that “applications for **anticipatory bail** are expected to be disposed of **within** a period of **six weeks** with the exception of any intervening application.

- **Compliance with earlier order:** The Court said that there needs to be a strict compliance of the mandate laid out in **Siddharth vs State of U.P. 2021** judgment.

o The Court further stated that in case the investigating officer believes that the accused will not abscond or disobey the summons, then until and unless he has been charged for a heinous crime, the officer is not compelled to arrest him during the investigation.

- **Directions to High Courts:** The High Courts have been directed by the apex court to identify undertrial prisoners who cannot comply with bail conditions and take appropriate action in light of Section 440 of the CrPC, facilitating their release.

o **About Section 440 CrPC:** The amount of bond shall not be excessive, and high courts & sessions courts may reduce the amount prescribed by the magistrate or a police officer.

o A **similar exercise** has been mandated under **Section 436A** of CrPC, under which a person imprisoned during investigation or trial shall be released on bail on completion of half of the jail term prescribed for that offence.

- **Direction to states:** The SC also directed all state governments and UTs to facilitate **standing orders** to comply with the orders and avoid indiscriminate arrests.

o The High Court in consultation with the State governments will have to undertake an exercise on the need for **special courts** and vacancies in the position of **Presiding Officers** of the special courts will have to be filled up expeditiously.

6. Right to Health

There was an intense discussion on a Private Member's *Right to Health Bill* in Rajya Sabha.

About Right To Health

- It is an **inclusive right**, extending not only to timely and appropriate health care, but also to the underlying determinants of health.
- It includes the access to safe and potable water and adequate sanitation, healthy occupational and environmental conditions, and access to health-related education and information, including on sexual and reproductive health.

Related Provisions In India

Fundamental Rights

Article 21 of the Constitution of India guarantees a fundamental right to life & personal liberty

DPSP

Articles 38, 39, 42, 43, & 47 put the obligation on the state to ensure the effective realization of the right to health.

Article 25 of UNDHR

India is a signatory of the Article 25 of Universal Declaration of Human Right (1948) by UN, that grants the right to a standard of living adequate for the health.

Challenges In Health Sector

- **Insufficient Medical personnel** - There is a massive shortage of medical staff, infrastructure and last mile connectivity in rural areas. Doctor: Population 1:1800 and 78% doctors cater to urban India (population of 30%).
- **Health budget** - Expenditure on public health funding has been consistently low in India, i.e. approximately 1.3% of GDP.
- **Strong role of Private players** - over 70% of the healthcare services in India are provided by private players. If private healthcare crumbles due to economic constraints or other factors, India's entire healthcare system can crumble.
- **High Out of pocket expenditure** - According to the latest National Health Accounts (NHA) estimates released in March 2021, patients bear a big chunk of health expenses, as high as 61% of the total health expenditure, by themselves.

Way Forward

- Public funding on health should be increased to at least 2.5% of GDP as envisaged in the National Health Policy 2017.
- A comprehensive public health law involving the right to health could be passed by Parliament.
- Health should be transferred to the *Concurrent List of the Seventh Schedule* under the Constitution. Presently, 'Health' is under the state list.

7. Suspension of MPs

- Over this week, the two Houses of Parliament have suspended 27 MPs (23 from the Rajya Sabha and 4 from the Lok Sabha MPs)
- In order to ensure that proceedings are conducted in the proper manner, the Speaker/ Chairman is empowered to force a Member to withdraw from the House.

Rules Under Which The Presiding Officer/Chairman

Acts

For Lok Sabha

Rule Number 373 of Rules of Procedure & Conduct of Business	<ul style="list-style-type: none">▪ It empowers presiding officers to direct an MP to withdraw from the House for any disorderly conduct.▪ Any Member so ordered to withdraw shall remain absent during the remainder of the day's sitting
Rules 374 and 374A - To deal with more recalcitrant (uncooperative) Members.	<ul style="list-style-type: none">▪ Rule 374 empowers the Presiding officers to name the legislators if the MP continues disrupting the House even after repeated warnings.▪ After that, the House can move a motion to suspend the MP for a period not exceeding the remainder of the session▪ Rule 374A was incorporated in the Rule Book in December 2001. The intention was to circumvent the necessity of adopting a motion for suspension.• Under this rule, the Speaker can name an MP, who shall then automatically stand suspended for 5 days or the remaining part of the session, whichever is less.• Provided that the House may, at any time, on a motion being made, resolve that such suspension be terminated

For Rajya Sabha

Rule 255 of Rule Book of Rajya Sabha	<ul style="list-style-type: none"> It empowers the Chairman of Rajya Sabha to direct any Member to withdraw immediately from the House for any disorderly conduct.
Rule 256	<ul style="list-style-type: none"> It empowers the Chairman to name the members who persistently disregards the authority of the Chair or abuses the rules of the Council. After that, the House may adopt a motion suspending the Member for a period not exceeding the remainder of the session. <ul style="list-style-type: none"> It should be noted that, unlike Lok Sabha (under rule 374A), Rajya Sabha can not suspend its members without passing a motion for the same.

Can Courts Intervene In A Matter Of Suspension Of MPs

- **Article 122** of the Indian Constitution says parliamentary proceedings cannot be questioned before a court.
- In some cases, however, courts have intervened in the procedural functioning of legislatures.
- For example, the Maharashtra Legislative Assembly passed a resolution in its 2021 Monsoon Session suspending 12 BJP MLAs for a year. The matter came before the Supreme Court, which held that the resolution was ineffective in law *beyond the remainder of the Monsoon Session*.

Terms Of Suspension

- The maximum period of suspension is for the remainder of the session.
- Suspended members cannot enter the chamber or attend the meetings of the committees.
- He will not be eligible to give notice for discussion or submission.
- He loses the right to get a reply to his questions

Reasons Behind The Disruptions

Political analysts and experts have discussed and identified four broad reasons leading to disorder in legislatures.

These are:

- a) The *lack of time available to MPs* for raising important matters;

- b) Unresponsive attitude of the government & retaliatory posture by Treasury benches;
- c) Deliberate disruption by parties for political or publicity purposes; and
- d) The absence of prompt action against MPs disrupting parliamentary proceedings

8. Goal Programme

Minister of Tribal Affairs launched the 2nd phase of the **Going Online As Leaders (GOAL) program**.

About The Programme

- It is a **joint initiative of the Ministry of Tribal Affairs & Meta (FaceBook)**, fully funded by Meta.
- The program aims to upskill and digitally enables tribal youth via *Facebook live sessions* and *Meta Business Coach*, a digital learning tool.
- There will be special focus on more than 10 lakh members of 50000 Vandhan Self Help Groups.
- *Goal 2 program will be open to all people from tribal communities.*
- It will **create a platform for self-help groups (SHGs)** and families associated with Tribal Co-operative Marketing Federation of India (TRIFED) to **take their products global**.
- They will be digitally trained with regard to market demand, packaging, branding and marketing of their products.
- **Implementing Agency:** The Ministry of Tribal Affairs in coordination with the Ministry of Electronics and Information Technology (MeITY), will be providing 6 digital classes in each of the 175 Eklavya Model Residential Schools (EMRS) selected under the program.
 - ✓ The project is being implemented by Education and Research Network (ERNET), which is an autonomous organization under MeITY.

Significance of The Programme

- It will help to close the **digital gender gap** by enabling more “women” to *get online and access digital services*.
- It will **empower the “youth”** from tribal communities to become village-level *digital leaders and entrepreneurs* for their communities.
- It **ignites competitiveness of tribal communities** by offering them an opportunity to come forward to showcase their creative potential leveraging digital platforms.

- It will **enhance their market linkages** and further serve the purpose to make Indian economy Atma Nirbhar by promoting local products.

1st GOAL Program

- It was launched in May 2020 to digitally skill and empower 5000 youth from tribal communities. It was completed by December 2021.
- It aimed at digital empowerment of tribal youth and women through the concept of mentor and mentee. In Phase-I, digital mentorship was provided *online* by attaching one mentor to 2 mentees.
- Trainings were provided for three pillars:
- A pilot run of the program was done in 2019 to mentor 100 tribal girls through the support of 25 women leaders.

9. Issue Of Electoral Bonds

The Union government approved authorised the State Bank of India (SBI) for issue the 21st tranche of electoral bonds.

About Electoral Bonds

- Announced in 2017 Union Budget, the Electoral Bond Scheme (EBS) was notified by the Central government in **2018**.
- These bonds are sold in denominations of Rs 1,000, Rs 10,000, Rs 1 lakh, Rs 10 lakh, and Rs 1 crore, without any maximum limit & can be **bought from authorised branches of State Bank of India**.
- A donor is required to pay the amount **via cheque or digital mechanism (cash is not allowed)**.
- The political parties can choose to **encash such bonds within 15 days** of receiving them.
- The bonds that are **not encashed by a party within 15 days are deposited by the SBI into the Prime Minister's Relief Fund. Hence these are interest-free bearer instruments**
- The name of the **donor** is not mentioned on bond.
 - ✓ Donors who contribute less than Rs. 20,000 to political parties through purchase of electoral bonds need not provide their identity details such as PAN, etc
- The eligible party is allotted a verified account by the Election Commission of India (ECI) and the electoral bonds are transacted through this account only.
- It can be **purchased by any company incorporated in India or any citizen of India**, either singly or jointly with other individuals.

Other Major Features of Electoral Bonds

- The **first 10 days of January, April, July and October has been specified for purchase of electoral bonds**.
- An additional period of 30 days shall be specified by the government in the year of Lok Sabha elections.
- In February 2017, the then finance minister said that the **donations would be tax deductible**. Hence, a donor will get a deduction and the recipient, or the political party, will get tax exemption, provided returns are filed by the political party.
- **Eligibility Criteria:** Any party that is **registered under section 29A of Representation of the Peoples Act, 1951** and has **got at least 1% of the votes** polled in the most recent General elections or Assembly elections can receive electoral bonds.

Advantages of the Electoral Bonds	Challenges Associated with the Electoral Bonds
<ul style="list-style-type: none"> • It helps the political parties to operate in a more transparent manner. • It can help to hold back political parties who operate with the goal of simply collecting funds from the public. • It works with the government goal to make election funding entirely safe and digitized; Cash will not be encouraged. 	<ul style="list-style-type: none"> • Through an amendment to the Finance Act 2017, the Union government has exempted political parties from disclosing donations received through electoral bonds. • Voters will have no idea of how, and through whom, a political party has been funded. • By keeping this knowledge from citizens and voters, it is compromising Right To information. • Since the identity of the donor is kept secret, it can lead to inflow of black money. • It eliminates the 7.5% cap (average net profits made during three simultaneous preceding financial years) on company donations which means now companies can make unlimited donations

Way Forward

- The government may reconsider and amend certain provisions of the Electoral Bonds Scheme to **ensure full disclosure and transparency**.
- Bonds must ensure that funds being collected by political parties are **accounted for through proper channels for clean money**, without transactional liability.

- The SC (in its interim order) has asked political parties to **reveal details of the donations** they received through electoral bonds to the ECI. On the other hand, the ECI has been asked to keep all the details in a sealed cover until further orders of the top court.

INTERNATIONAL AFFAIRS

1. India-specific waiver

- US House of Representatives approved legislation recommending an **India-specific waiver** for the **Countering America's Adversaries Through Sanctions Act (CAATSA)**.
- The amendment urges the Biden administration to use its authority to provide India with a CAATSA waiver to help deter aggressors like China.
- The President does not need legislative approval for a waiver. He has the executive authority to do so. However, Congressional support helps in keeping with the spirit of one president who once sought legislative cover for action.

Waivers Under CAATSA

- The act said countries having a **"significant transaction"** with Russian intelligence and military agents will be subject to at least five kinds of sanctions.
- Hence, *ordinary transactions* will not invite sanctions and the imposition of sanctions comes down to the interpretation of significant transaction. **This leaves the scope of waiver.**

- Other exemptions mentioned include the *transaction not affecting US strategic interests, not endangering the alliances it is a part of, etc.*

CAATSA and India

- In 2018, India purchased S-400 missile system from Russia and in November 2021 the delivery of this missile system began.
 - ✓ India had signed a \$5 billion deal with Russia to buy **five units** of S-400 defence missile systems.
- In July 2018, the US communicated that it was ready to grant India (along with Indonesia and Vietnam) a waiver on the CAATSA sanctions.
 - ✓ Moments after India and Russia signed the deal, the US embassy in India said that the US sanctions were aimed to punish Russia, not to damage military capabilities of 'our allies'.
- However, off late, US seems to have changed its stand as Washington told India it was unlikely to get a waiver from CAATSA.
 - ✓ Last year, US sanctions were imposed on Turkey and China over the procurement of S-400 missiles systems. Hence, there were

renewed apprehensions that US may impose similar punitive measures on India.

- So far, **US had never categorically stated whether CAATSA would apply to India.**
 - ✓ Also, citing the strategic defence partnership between the two countries, India was confident of getting a waiver from CAATSA.

S-400 Triumph

- Russian-built S-400 Triumph is the world's most dangerous operationally deployed modern long-range surface-to-air missile system.
 - ✓ A missile defence system is intended to act as a shield against incoming ballistic missiles.
- It is considered much more effective than the Terminal High Altitude Area Defence (**THAAD**) system developed by US.
- S-400 was made operational in 2007, and is responsible for defending Moscow. It was deployed in Syria in 2015 to guard Russian and Syrian naval and air assets.

Features

- It can be deployed within five minutes, and is capable of firing **4 types** of missiles to create a layered defence.
- It can simultaneously track **100 airborne targets**, including super fighters such as the US-built F-35, and engage six of them at the same time.

Why India Need This

- India must have the capability to thwart missile attacks from the two likeliest quarters, Pakistan and China.
- Beijing signed a deal with Moscow in 2015 to buy six battalions of the S-400 system, and deliveries began in January 2018.
- While the Chinese acquisition has been seen as a "gamechanger" in the region, the concern for India is limited because of the system's range.
- However, the S-400 can play a crucial role in case of a two-front war.
- While the 36 Rafales armed with Meteor and Scalp missiles being inducted by IAF are primarily meant for an offensive role, the S-400 systems are defensive in nature.

2. India-Russia Trade

- Driven by a sharp spike in crude oil shipments, India's imports from Russia have shot up 3.7 times to top \$5 billion during April and May 2022.



- Since February, when Russia attacked Ukraine, imports have risen close to 3.5 times to \$8.6 billion, compared to \$2.5 billion in the corresponding period in 2021.
- Apart from petroleum, some other product categories, such as fertiliser and edible oil, have also seen a significant rise.
- The numbers indicate that since March 2022, the government has not been shy of allowing imports from Russia despite international pressure.
- The decision to import from Russia is mainly driven by **India's own national interests** as the sanctions by the West have helped India get a better deal from Russian companies.

3. India – Africa ties

- According to the data released by the government, 222 lines of credit (LoCs) worth \$14.07 billion covering as many as 357 projects have been extended to 42 countries in Africa.
- These projects are spread across sectors like roads, railways, power, ports and shipping, telecom, health, education and aviation.
- India has so far completed 197 projects in Africa, 65 more are currently being implemented and 81 are at the pre-execution stage.
- African continent plays a particularly important role in India's foreign policy outlook and that this is reflected in India's expanding diplomatic footprint that now covers 43 African countries.

- This highlights the fact that development assistance continues to play an important role in India's engagement with Africa.

4. India, Australia Strategic Ties

- India and Australia are expanding their strategic ties to critical minerals in a bid to create a bulwark against China's dominance over raw materials.
- An MoU has been signed to establish **India-Australia Critical Minerals Investment Partnership**.
 - ✓ The MoU envisages **\$6 million as initial funding**, to be shared equally by both countries, towards a shared ambition to develop secure, robust and commercially viable critical minerals supply chains.
 - ✓ The partnership envisages joint investment for viable *lithium and cobalt projects* in Australia. This is critical for India's transition towards clean energy ambitions.
- Before the Russian military invasion of Ukraine, eastern Ukraine (Donbas) was expected to emerge as a major source of lithium in the world market.
- Russian control of the Donbas region - Donetsk & Luhansk - has forced emerging electric vehicle makers to look for lithium elsewhere, like in Australia.

5. 7th Lancang-Mekong Cooperation (LMC) meeting

- Myanmar's military government hosted the 7th Lancang-Mekong Cooperation (LMC) meeting. This was the **first high-level regional meeting hosted**

by Myanmar since the Army took power in a military coup of February 2021.

- The meeting held under the theme "**Solidarity for Peace and Prosperity**" in the central city of Bagan (Myanmar), a UNESCO World Heritage site.
- At the meeting, China proposed six programs which will benefit the member countries. This includes cooperation plans in agriculture, water resources, digital economy, aerospace, education, and public health.

About Lancang-Mekong Cooperation (LMC)

- It is a multilateral platform established in 2016 for cooperation between the riparian states of the Lancang River and Mekong River.
- **Participants** – China, Cambodia, Laos, Myanmar, Vietnam and Thailand.
 - ✓ The Lancang is the part of the Mekong that flows through China.
 - ✓ Cambodia, Laos, Myanmar, Vietnam and Thailand are five downstream countries of the Mekong River.
- It is a **China-led initiative** which aims to **manage water flow from Chinese hydropower dams** with the other riparian states.
 - ✓ This region is a potential source of regional tensions due to an increasing number of hydroelectric projects.
 - ✓ These projects are altering the flow and raising concerns of ecological damage.
 - ✓ China has built 10 dams along the upper stretch of the Mekong, the part it calls the Lancang.
 - ✓ This has been criticized as these projects affect water levels and downstream fisheries that are important to several Southeast Asian nations' economies.

SUMMITS AND ORGANISATIONS

1. G20 FOREIGN MINISTERS' SUMMIT

- G20 foreign ministers' summit was held at Bali, Indonesia - the current President of G20.
- It was held under the **theme** - *Building a more peaceful, stable, and prosperous world together*.
- It ended with no joint statement, and no announcements of any agreements being reached.
- India was represented by the EAM, Dr. S. Jaishankar.

India & G20

- **India is a troika member** - India is a G20 troika member. Troika of G20 consists of the current (Indonesia), previous (Italy) and incoming (India) G20 Presidencies.

✓ India will assume the G20 Presidency on 1st December 2022 from Indonesia. It will convene the G20 Leaders' Summit for the first time in India in 2023.

• New Sherpa Nominated

✓ Former NITI Aayog CEO Amitabh Kant has been picked as India's new Sherpa for G-20.

- o A sherpa is the personal representative of a head of state or head of government.
- o Sherpa engages in planning, negotiation & implementation tasks through the Summit.
- o Sherpas meet much before the start of Summit to iron out differences on various issues.

✓ He replaced Piyush Goyal, Minister for Commerce & Industry and Consumer Affairs, who was appointed as the G-20 Sherpa in September 2021.

About G 20

- G-20, is a group of finance ministers and central bank governors from 19 individual countries and EU. It was established in 1999.
- G20 was elevated to a forum of Heads of State/Government in 2008 to effectively respond to the global financial crisis of 2008.
- G-20 is a forum, not a legislative body, its agreements and decisions have no legal impact, but they do influence countries' policies and global cooperation.

Significance

• **Carries Significant Weight:** G20 members represent around 85% of global GDP, over 75% of global trade, and 2/3rd of the world's population.

• **Promotes Multilateralism:** The practice of rotating the chair gives all the members a chance to shape the global agenda.

• **A Number Of Overarching Themes:** It has gradually broadened its focus to areas like *counterterrorism, Climate change, North Korea and Iran*.

✓ 2021 summit endorsed the Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalisation of Economy.

• **United Fight Against COVID-19:** In March 2020, G20 leaders pledged to inject \$5 trillion into the global economy to reduce the economic impact of pandemic.

✓ G20 members have also agreed to contribute to WHO's COVID-19 Solidarity Response Fund on voluntary basis.

2. RUSSIA-UKRAINE DEAL TO RESUME GRAIN EXPORTS

Recently, Russia and Ukraine **agreed to resume grain exports from Black Sea ports** (Odessa, Chernomorsk and Yuzhny) as part of a deal negotiated by United Nations and Turkiye (new name of Turkey).

o The deal **makes provisions for the safe passage of ships**.

Significance of deal:

o **Ease global food insecurity:** It will enable Ukraine to export 22 million tonnes of grain and essential goods such as sunflower oil, stuck in Black Sea ports due to Russia's invasion.

o **Ease Russia's export of fertilisers** essential for ensuring future high yields on crops and bring down food prices.

✓ Russia accounts for **13% of world output** of fertilisers.

Importance of Russia and Ukraine for global food security:

- o Both countries **account for more than a quarter of the world's wheat supplies** (Russia- 20%; Ukraine- 8%).
- o **Ukraine is the world's fourth largest exporter of corn**, accounting for 16% of global exports.
- o **Ukraine is the world's largest exporter of sunflower oil.**

3. 2022 SUPPLY CHAIN MINISTERIAL FORUM

- India recently adopted US' joint statement of the 2022 Supply Chain Ministerial Forum on cooperation of global supply chains.
- A partnership of 18 economies, **including India, US and European Union** has unveiled a four-point roadmap for building collective, long-term resilient supply chains (RSC) to counter risks arising from supply dependencies and vulnerabilities.
 - o Roadmap was formulated in the backdrop of **supply chain summit that was held in US, in 2021.**
- Statement recognises **shocks to global supply chains from pandemics, wars and conflicts, extreme climate impacts, and natural disasters.**

- Building RSC roadmap is based on global principles of **transparency, diversification, security and sustainability.**
 - o Currently, the global supply chain is **dominated by China.**
 - o Measures are aimed at **reducing the dependence of 17 partners on Chinese supply chains** against the backdrop of its assertive actions, including on economic and trade issues.
 - o India, Japan and Australia have also launched **Supply Chain Resilience Initiative (SCRI)** to counter China's dominance of supply chain in the Indo-Pacific region.

Significance of RSC

- o **Risk reduction** by allowing visibility into all operations across the network.
- o **More efficient operations** leading to more investment in innovation and growth.
- o **Improved productivity.**

DEFENSE AND SECURITY

1. THEATRE COMMANDS OF TRI-SERVICES

Defence Minister Rajnath Singh has said that a joint theatre command of tri-services would be set up to enhance coordination among armed forces.

Theaterisation of Armed Forces

- Theaterisation is a concept which seeks to *integrate the capabilities/assets* of the three services - army, air force and navy – in order to optimally utilise their resources for wars and operations.
- Theatre commands will have units of the Army, the Navy and the Air Force. All of them will work as a single entity looking after security challenges in a specified geographical territory.

- It will create a military structure in which specific theatre commands/units will be placed under the Theatre Commander.
- The Theatre Commander will be a *three-star general*, drawn from any of the three services, depending on the function assigned.

Theaterisation Model Under Consideration

It talks about setting up of six theatre commands. These are:

• Air Defence Theatre Command

✓ It will control air defence resources of all three services. It will be tasked with protecting military assets from airborne enemies.

✓ It will be headed by a top three-star Indian Air Force officer based in **Prayagraj**.

• Maritime Theatre Command

✓ This will be responsible for securing India from seaborne threats.

✓ Headed by a top three-star Indian Navy officer and will be based in **Karwar, Karnataka**.

• Other Commands - Northern Command

(Comprising Jammu & Kashmir and Ladakh); **Western Command; Eastern Command; Logistics command.**

• The 1st phase involves the creation of Air Defence Command and Maritime Theatre Command.

Present Model In India

• At present, India has *17 single service commands* and only *two tri-service commands*.

• The 17 single service commands are divided as:

Army – 7 commands Airforce – 7 commands Navy – 3 commands

• **Two tri-service commands** are: Andaman and Nicobar Command (ANC), and The Strategic Force Command

(handles the nuclear weapons).

• Creating Theatres would involve merging existing commands. After restructuring, the ANC command will come under the proposed Maritime Theatre Command and SFC will be under **National Security Council**.

Challenges

1. Apprehensions of Air force: It has reservations regarding the asset division. The organization fears that it

will lose control over its assets and operations. IAF has also raised apprehension regarding the nomenclature of commands, the leadership of theatre commands and dilution of powers of chiefs.

2. Apprehensions Raised by MHA: The Ministry of Home Affairs is worried about the operational command of Central Armed Police Forces (CAPF). It fears that the control of CAPF would go to Ministry of Defence.

2. COCHIN SHIPYARD DELIVERS AIRCRAFT CARRIER TO NAVY

• **Indian Navy** took delivery of *Indigenous Aircraft Carrier, IAC-1, nation's 1st indigenously built aircraft carrier*

from its manufacturer, Cochin Shipyard Ltd.

• The carrier, after commissioning, will be called 'Vikrant. It is named after India's first aircraft carrier – INS

Vikrant, which was acquired from the UK in 1961, played a stellar role in 1971 War with Pakistan.

• The commissioning of this carrier is likely to take place on Independence Day.

Features

• The 262-metre-long carrier has a full displacement of close to 45,000 tonnes. The ship would be capable of operating an air wing consisting of *30 aircraft*.

• The aircraft carrier will be initially with the western naval command. The Western Naval Command is one of the three command-level formations of the Indian Navy. It is headquartered in Mumbai, Maharashtra.

Ship - A Perfect Example Of Collaboration With Private Players

• The aircraft carrier has a large number of indigenous equipment and machinery from major private players such as Kirloskar, Larsen & Toubro, etc.

• Over 100 MSMEs were also involved in the production of this ship.

• The indigenisation effort has led to the development of ancillary industries besides the generation of employment opportunities.

Significance of IAC for India

A. Enable Transition from Brown Water Navy to Blue Water Navy to carry out air operations

✓ A blue water navy is a navy that has capacity to project a nation's strength and power across *high seas*.

✓ A brown water navy is capable of military operations in *littoral zone waters*.

B. Strategic Significance making India a significant maritime power

✓ India's area of responsibility ranges from the east coast of Africa to the Western Pacific.

✓ High percentage of India's trade passing through the South China Sea.

✓ Also, India is a dominant force in Indo-Pacific region.

✓ To counter China in the region more effectively as China has two operational aircraft carriers and the third one was launched recently in June 2022.

C. India Joined Elite Club: So far, only 5 or 6 nations

have the capability of manufacturing an aircraft carrier.

D. Aatma Nirbhar Bharat: With an overall indigenous content of 76%, the aircraft carrier is a perfect example of the quest for Aatma Nirbhar Bharat.

India's Earlier Aircraft Carriers

INS Vikramaditya • Navy's only aircraft carrier *in service currently* (Russian built, commissioned in 2013)

INS Vikrant • It was British-built HMS Hercules; Commissioned in Indian Navy in 1961.

INS Viraat • It was British-built HMS Hermes; Commissioned in Indian Navy in 1987

narcotics

through rail. RPF has been empowered to conduct search, seizure & arrest under Narcotic Drugs & Psychotropic Substances (NDPS) Act since April 2019.

• Recent initiatives of RPF include:

✓ **Operation AAHT** – to rescue victims especially women and children, from traffickers.

✓ **Operation Yatri Surakhsha** – RPF supports state police to fight against passenger crime.

✓ **Meri Saheli Initiative** – To focus on safety of women passengers.

✓ **Operation Nanhe Farishte** - To save children who are abandoned and found alone at railway stations.

3. OPERATION NARCOS

- Railway Protection Force (RPF) had launched **Operation "NARCOS"** – a drive against smuggling of

GEOGRAPHY AND ENVIRONMENT

GEO IAS

1. Green Hydrogen

NITI Aayog released a report titled *Harnessing Green Hydrogen: Opportunities for Deep Decarbonization in India*.

Major Highlights of The Report

- The government should focus on enabling a *cost reduction pathway* for green hydrogen production in India.
- Hydrogen **demand in India could grow more than fourfold by 2050**, representing almost 10% of global demand.
- **Decarbonisation:** Green hydrogen is crucial for sectors such as fertilizers, refining, methanol, maritime shipping etc.
- In the longer term, *steel and heavy-duty trucking are likely to drive the majority of demand growth*,

accounting for almost 52% of total demand by 2050.

- **Three hydrogen corridors should be developed** across the country based on state grand challenges.
- The governments **can provide grants to projects, support entrepreneurs** through incubators and investor networks, and put in place regulations that manage first-mover risks.
- Promote export of green hydrogen and green hydrogen-embedded products through a **global hydrogen alliance**.
- Make green hydrogen *competitive vis-à-vis grey hydrogen*
- Encourage *market development* using the industrial cluster, and viability gap funding.
- Initiate *Green Hydrogen standards* and a **labelling programme**

About Green Hydrogen

- It is hydrogen that is **produced by splitting water into hydrogen and oxygen using an electrolyser** powered by *renewable energy sources such as wind and solar*.

- **Certified green hydrogen requires an emission reduction of >60-70%** below the benchmark emissions intensity threshold.

Significance of Green Hydrogen	Challenges with the Green Hydrogen
<ul style="list-style-type: none"> • It can potentially provide a replacement of fossil fuels in industrial processes. • It can help India significantly reduce its dependence on imported fuel. • It can be produced from excess renewable energy and stored in large amounts for a long time. • It can also be used with fuel cells to power anything that uses electricity, such as electric vehicles and electronic devices. • It can be produced wherever there is water and electricity to generate more electricity or heat. 	<ul style="list-style-type: none"> • We need high energy requirement in compressed hydrogen storage, due to low specific gravity. • Only a handful of Indian companies manufacture electrolyzers. • According to The Energy and Resources Institute (TERI), the cost of green hydrogen production is \$5-\$6 per kg. At this rate, it is not easy for industries like steel, fertilizer and long-range shipping to adopt this fuel. • Unwillingness of Industries: Industrial sectors such as chemicals, fertilisers, steel and refineries are unlikely to transition to low carbon alternatives because of the higher associated costs

Way forward

- The government could bring a **Production-Linked Incentive (PLI) scheme** for manufacturing electrolyzers to bring **down the production cost of green hydrogen**
- To promote clean fuels, India **should consider making it mandatory for fertilizer plants and oil refineries to purchase green hydrogen**.

Other Types Of Hydrogen

Blue hydrogen	It is produced mainly from natural gas , using a process called steam reforming, which brings together <i>natural gas and heated water</i> in the form of steam. The output is hydrogen,
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	but also carbon dioxide as a by-product (most of which is captured and stored) . It is sometimes described as low-carbon hydrogen.
Grey hydrogen	It is created from natural gas, or methane , using steam methane reformation but <i>without capturing the greenhouse gas</i> .
Black and brown hydrogen	It made from fossil fuels like coal , through the process of gasification. No capture of GHG. It is the cheapest form
Pink/ Red/ Purple hydrogen	It is generated through electrolysis powered by nuclear energy .
Yellow hydrogen	It made through electrolysis using solar power .
White hydrogen	It is naturally-occurring geological hydrogen found in underground deposits and created through fracking . There are no strategies to exploit this hydrogen at present.
Turquoise hydrogen	This is a new entry in the hydrogen colour charts and production has yet to be proven at scale. It is made using a process called methane pyrolysis to produce hydrogen and solid carbon .

Green Hydrogen Policy/ Green Ammonia Policy

- It **aimed at boosting the domestic production of green hydrogen to 5 million Tonnes by 2030** and making India an export hub for the clean fuel.
- It offers 25 years of free power transmission for any *new renewable energy plants* set up to supply power for green hydrogen production before July 2025.
 - ✓ This means that a green hydrogen producer will be able to set up a solar power plant in Rajasthan to supply renewable energy to a green hydrogen plant in Assam and would not be

- required to pay any inter-state transmission charges.
- ✓ Besides, producers will be allowed to set up bunkers near ports for storage of green ammonia for export by shipping.
- The policy also states that energy plants set up to produce green hydrogen/ammonia would be given connectivity to the ISTS (Inter-State Transmission System) on a priority basis.
- Manufacturers of Green hydrogen and ammonia are allowed to purchase renewable power from the power exchange or set up Renewable Energy (RE) capacity themselves or through any other developer, anywhere.
- It provides facility for producers to bank any surplus renewable energy generated with discoms (power distribution companies) for upto 30 days and use it as required

Challenges

- **Monopoly:** Many public sector electricity utilities are unwilling to let go of their monopoly in power distribution.
- **Reluctance of States:** The RE-rich states are either moving away from allowing RE banking or introducing regulations to restrict this facility.
- **Lesser Margins:** The GHP omits to mention any waiver of ISTS losses for green hydrogen and ammonia projects. Also, it provides for discoms to procure and supply RE to makers of green hydrogen/ammonia at the cost of procurement with only a small margin determined by the SERCs. This margin may not be enough incentive for discoms for long-term basis.

2. Offshore Wind Energy Projects.

Why in news?

Recently, Ministry of New & Renewable Energy (MNRE) released **Strategy Paper for Establishment of Offshore Wind Energy Projects.**

About Strategy Paper for Establishment of Offshore Wind Energy Projects

- Paper identifies **16 zones in total, off the coasts of Gujarat and Tamil Nadu** for harnessing offshore wind energy.
- It suggests **incentives to companies in the offshore wind energy space, including the waiver of transmission charges, renewable energy credits, carbon credits benefits and viability-gap funding.**
- Also, it **proposes three models** for the holistic

development of offshore wind farms in the country.

About Offshore Wind Energy

- According to the MNRE, **India can generate 127 GW of offshore wind energy** with its 7,600 km of coastline.

Key Statistics

- In 2020, **nearly 10 million children were displaced** due to weather-related events.
- **Nearly 90% of the global burden of disease** associated with climate change is borne by children under the age of five.
- **India is among 4 South Asian countries where children are most at risk** of the impacts of climate change as per UNICEF's Children's Climate Risk Index' (CCRI).

Wind energy

- Wind power is one of the **fastest-growing renewable energy technologies.**
- Out of the total renewable energy installation capacity of 78 GW, **wind energy contributes to more than 35 GW as on March 2019 and the national target is to achieve 60 GW of wind energy installations by 2022.**
- There are **two ways in which energy can be harnessed:**

- ✓ **Onshore wind energy**, is the power that's generated by wind turbines located on land driven by the natural movement of the air.
- ✓ **Offshore wind energy**, on the other hand is the energy generated from farms that are located over shallow open water, usually in the ocean, where there are higher wind speeds.

Steps taken by Government for promotion of Offshore Wind Energy

- **"National Offshore Wind Energy Policy – 2015":**

The policy provides for offshore wind power development up to a seaward distance of 200 nautical miles from the baseline, i.e., up to the country's EEZ.

- ✓ **Ministry of New & Renewable Energy (MNRE)** is the Nodal Ministry, and the **National Institute of Wind Energy (NIWE)** is the Nodal Agency for the development of Offshore Wind Energy in India.

- Government had also announced **installing of 5 GW of offshore wind installations by 2022 and 30 GW by 2030.**
- Out of the total estimated potential, more than 95% of commercially exploitable resources are located in seven states: Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Tamil Nadu
- Also, the **National Institute of Wind Energy (NIWE)** estimated **36 GW of offshore wind energy potential exists off the coast of Gujarat and 35 GW off the Tamil Nadu coast only.**

Benefits and Challenges of Offshore wind Energy

Benefits	Challenges	
Offshore	<ul style="list-style-type: none"> • More energy generation: Offshore wind speeds are typically faster than on land, and even small increases in speed can produce large increases in energy generation. • More wind consistency: Wind speeds offshore don't vary as much and the wind direction doesn't change as often, so offshore turbines are more consistent in power generation • No interference with land usage: Offshore turbines don't interfere with land usage, and there are no physical obstacles that can interrupt the wind flow. • More energy: Offshore turbines can also be built taller which means they can produce more electricity. 	<ul style="list-style-type: none"> • Higher cost: Creating the infrastructure for offshore wind farms is expensive and complex, especially over deeper waters. • Maintenance & repairs: Sea waves and very high winds can damage turbines, so they need more maintenance. Also, Offshore wind farms are difficult to access, which means longer wait times for repairs. • Impact marine life: The underwater noises from turbines can impact fauna and other marine life.
	<ul style="list-style-type: none"> • Less expensive: Infrastructure required for onshore wind power is half the cost of offshore and can provide investment payback as quickly as two years. • Shorter cables: With less distance between the turbines and the consumer, there's less voltage drop off in the cabling. • Low impact on 	<ul style="list-style-type: none"> • Varying wind speed: Because wind speed and direction vary on land, achieving consistent power generation can be challenging. • Potential wind blockages: Physical blockages from buildings and surrounding landscape like hills or

	<p>surroundings: As toxins aren't released, the site can be farmed around, and there's very little impact to wildlife.</p> <p>• Quick installation: Onshore wind turbines are quick to install and can be constructed within a few months.</p>	<p>mountains can also cause production inconsistencies.</p> <p>• Intermittent energy: Because onshore turbines don't run year-round, they require fossil-fuel backups when the wind speed is slow.</p>
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Way Forward

• Consider for Renewable purchase obligation

(RPOs): Currently, there are only two types of RPOs: solar and non-solar.

- ✓ MNRE can set specific wind RPO targets for each state just like it does for solar.

• **Lower taxes:** Wind power generation companies cannot claim input tax credits when they pay GST to purchase goods and/or services for setting up the project.

- ✓ The majority of wind farm components **need to be imported.**
- ✓ If excise duties and GST could be waived, **early project development will be more affordable.**

• **Feed-in tariff (FiT):** FiT is a price-driven policy for promoting RE expansion where the government offers a guaranteed purchasing price for electricity produced from RE sources for fixed periods of time.

- ✓ Discoms can adopt FiT regulations and **make offshore wind power procurement mandatory.**
- ✓ FiT can be used to **promote offshore wind power in the early stages of development until it becomes economically viable.**

3. The oldest record of fossil tupaiids

- Scientists have *spotted fossils of a small mammal resembling squirrels called treeshrew* belonging to a new genus and species from **Jammu and Kashmir.**
- It currently represents the **oldest record of fossil tupaiids** in the Siwaliks, extending their time range by 2.5- 4.0 Million Years in the region.
 - Tupaiids refers to several species of the East Indian and Asian

insectivorous family, somewhat resembling squirrels in size and arboreal habits (living in trees).

- Treeshrews are very rare elements of the fossil record, with only a few species known throughout the entire Cenozoic era (66 million years ago until today)

4. Environment Protection Act, 1986

The Ministry of Environment, Forests and Climate Change (MoEFCC) **proposes amendments in Environment**

Protection Act (EPA), 1986, to decriminalize provisions.

Amendments Proposed In The Act

- The ministry **has proposed to replace imprisonment with monetary penalty** for the less severe contraventions under the EPA, which will also be decriminalized.
- Serious violations of EPA which lead to grievous **injury or loss of life shall be covered under the provision of IPC.**
- The amendments also **propose the creation of an “Environmental Protection Fund”** in which the amount of penalty will be remitted.

About Environment Protection Act, 1986

- It was enacted under **Article 253** of the Indian Constitution **to implement the decisions made at the Stockholm Conference 1972.**

✓ **Article 253** empowers the Parliament to make any law for the whole or any part of the territory of India for implementing any treaty, agreement or convention with any other country or countries or any decision made at any international conference, association or other body.

✓ In the Conference it was agreed to take suitable steps for the protection and improvement of the human environment.

- It lays down a system of speedy and adequate response to situations threatening the environment.
- This Act's major **goal is to provide for the conservation and improvement of the environment and all matters related to it.**
- It is an umbrella legislation designed to provide a framework for *the coordination of central and state*

authorities established under the Water Act, 1974 and the Air Act, 1981.

Main Provisions of the Act

- **Powers Of The Central Government** - To establish authorities charged with the mandate of preventing *environmental pollution in all its forms* and to *tackle specific environmental problems* that are *peculiar to different parts of the country.*

- **Appointment of officers and their powers and functions** - The Central Government may appoint officers

with such designations and may entrust to them such of the powers and functions as it may deem fit.

- **Restriction on pollutant discharge** - No individual or organization shall discharge/emit or permit to discharge/emit any environmental pollutant in excess of the prescribed standards.

- **Cognizance of offences** - No court shall take cognizance of any offence except on a complaint made by the

Central Government or any authority or officer authorized in this behalf by that Government.

- **Powers of entry and inspection** - Any person empowered by the Central Government shall have the right to

enter any place for inspection or compliance with any order, notification and direction given under the Act.

- **Establishment of environmental laboratories** - The Central Government is entitled to establish or recognize any laboratory/institute as environmental laboratories to carry out the functions entrusted to such a laboratory.

- **Penalties for offences** - Non-compliance or Contravention to any of the provisions of the Act is considered

as an offence. Any offences under the EPA are punishable with the imprisonment of up to 5 years or a fine up to 1 lakh rupees or both.

Drawbacks of the Act

- **Protection of action taken in good faith** - **No suit, prosecution or other legal proceeding shall lie against the Government** or any officer or other employee of the Government or any authority constituted under this Act.

- **Complete Centralization** - **Wide powers are provided to the center** and no power is given to the State Governments. It can be liable to arbitrariness and misuse.

- **Absence of Public Participation** - **It also says nothing**

about public participation as regards environmental protection.

5. Nitrate Absorption in Plants

Researchers led by those from the National Centre of Biological Sciences, Tata Institute of Fundamental Research, Bengaluru (NCBS-TIFR), have found a new pathway that regulates nitrate absorption in plants.

About New Method

- The **micro-RNA, miR444**, activates the target gene **MADS27**, which increases nitrate absorption, root development and stress tolerance, and thus provides a way to control these plant properties.
- The researchers studied this mechanism in both rice and tobacco plants.

Role of Nitrates in Plants

- Nitrogen is one of the most important macronutrients needed for development of a plant.
- It is a **part of chlorophyll**, amino acids and nucleic acids, among others.
- It is **mostly sourced from the soil** where it is mainly absorbed in the form of nitrates and ammonium by the roots.
- It also plays a role in controlling genome-wide gene expression that in turn regulates root system architecture, flowering time, leaf development, etc.

Nitrate Overuse

- The overuse of nitrates in fertilizers can lead to the dumping of nitrates into the soil leading to accumulation of nitrates in water and soil.
- This accumulation adds to soil and water pollution and increases the contribution to greenhouse gases.

6. Status of biodiversity : REPORT

A report on the status of biodiversity has been released by the **Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)**.

Major Highlights of the Report

- **Biodiversity Used for Consumption:** The plant kingdom is the biggest representative of species used for consumption. Count is around 31,100 species of wild plants.

- ✓ It also comprises of wild fish species and aquatic invertebrates as well as wild amphibians, reptiles, birds and mammals.
- ✓ This is directly impacting biodiversity.

• **Local Variations:** About 34% of marine wild fish stocks are overfished and 66% are fished within biologically sustainable levels.

• **Used for Income and other Source:** One in five people rely on wild plants, algae and fungi for their food and income.

- ✓ 2.4 billion rely on wood for cooking. About 90% of the 120 million people working in capture fisheries are supported by small-scale fishing.

• **Illegal trade** in wild species, which represents the 3rd largest class of all illegal trade and have estimated annual values of up to \$199 billion, worsen the situation.

- ✓ Timber and fish make up the largest volumes and value of illegal trade in wild species.

• **Sustainable Use By Indigenous People:** Indigenous people and local communities used local knowledge, practices and spirituality for the sustainable use of wild species.

- ✓ They respected nature and only took what they needed.

• **Report Focuses Attention Towards Fact That Biodiversity Is Not Valued As Much As It Should Be**

- ✓ **Countries are focusing more on short-term profits and economic growth**, excluding the consideration of nature in policy decisions.

✓ **These efforts have failed mainly because the people who benefit from biodiversity are not the ones who live with it symbiotically.**

Way forward

- Policy that are inclusive and participatory should be used like Biodiversity act 2002.
- The sustainable use of wild species needs constant negotiation and adaptive management along with a common understanding of sustainable use.

About IBPES

- It is an intergovernmental organization, established by

member States in 2012.

- In 2010 a resolution of the 65th session of the United Nations General Assembly urged the United Nations Environment Program (UNEP) to convene a plenary meeting to establish IPBES.
- It was established to improve the interface between science and policy on issues of biodiversity and ecosystem services.
- It is intended to serve a similar role to the Intergovernmental Panel on Climate Change (IPCC).

7. Gaia Hypothesis

- It was formulated by the chemist James Lovelock in the early 1970s.
- It **proposes that living organisms interact with their inorganic surroundings on Earth to form a synergistic and self-regulating, complex system that maintains the conditions for life on the planet.**
- It was hypothesized that by using the Gaia principle one **can detect life in the atmosphere of other planets.**
- It was **initially criticized for being teleological and against the principles of natural selection.**
- Later refinements aligned it with ideas from fields such as Earth system science, biogeochemistry and systems ecology.
- Main objective of Gaia principle is to protect mother earth. Some of important aspects where Gaia principle is being used:
 - ✓ Organic farming and zero Budget natural farming.
 - ✓ Sustainable development by Brundtland Commission

8. SPECIES IN NEWS

RED WEAVER ANTS



- In Odisha, **red weaver ants** are consumed in the form of a Chutney known as '**Kai Chutney**' and scientists have sought a GI tag for the dish.
- It helps in getting rid of flu, common cold, whooping cough, to increase appetite, enhance vision and eyesight naturally.
- The tribal healers also prepare medicinal oil, which is used as baby oil and externally used to cure rheumatism, gout, ringworm and other skin diseases.
- These ants **live in colonies consisting of multiple nests on trees.**
- Each nest is made of leaves stitched together using the silk produced by their larvae, and can withstand strong winds and can be water-tight.
- These ants are **indigenous to Mayurbhanj, Odisha.**

CHENKURINJI



- It is a **species of a tree**, endemic to the *Agasthyamala Biosphere Reserve*.
- It was once abundant in the hills on the southern parts of the *Aryankavu Pass in Kerala's Kollam district*.
- It is **very susceptible to climate change** and the present condition of the species is quite bad with low regeneration performance.
- It **has medicinal properties** and is used to lower blood pressure and treat arthritis.

EOSCANSOR COBRENSIS



- A team of researchers published paper on its fossil discovery
- It is a **reptile, belonging to Pennsylvanian subperiod of Carboniferous period**, around 305 million years ago.
- It used to live in area around present-day New Mexico.
- The species belong to Varanopidae, which is an extinct family of reptiles. They were **similar to monitor lizards**.
- The ancient reptile was 24.5 cm in length and 58.3 g in weight.

UTRICULARIA FURCELLATA



- It is a **rare carnivorous plant** found for first time in western Himalayan region.
- These plants are **mostly found in fresh water and wet soil**.
- Its targets range from protozoa to insects, mosquito larvae and even the young tadpoles.
- The species face **threat due to heavy biotic pressure because of being at a tourist spot**.

MONARCH BUTTERFLY



- It has been recently **classified endangered in the International Union for Conservation of Nature (IUCN) Red List**.
- Most of these butterflies are found in winter in the California coast and forests in central Mexico.
- A smaller population of the species is **also found in countries like Australia, Hawaii and India**.
- They breed in only one particular plant The Milkweeds
- Habitat destruction and climate change are mainly responsible for pushing the insect towards extinction

SNOW LEOPARD



- It is a large member of the cat family **native to the mountain ranges of Central and South Asia**.
- It acts as an indicator of the health of the mountain ecosystem in which they live.
- It is the **State animal of Himachal Pradesh**
- **Hemis National Park** in Ladakh, is famous as the Capital of Snow Leopard in India.
- It is listed as **Vulnerable in the IUCN Red List and Schedule I on Indian Wildlife (Protection) Act 1972**.

LIGHT-MANTLED ALBATROSS



- It is a **species of bird**, native to the Antarctic seas. Recently it was recorded in Tamil Nadu.
- It is also, known as the grey-mantled albatross or the light-mantled sooty albatross. It **spends most of their lives in flight**.
- It is **listed as Near Threatened IUCN Red list**.

SCIENCE AND TECHNOLOGY

1. NATIONAL ANTIDOPING ACT, 2022

Why in News?

Parliament passed the National Anti-Doping Act, 2022 recently.

About National Anti-Doping Act, 2022

- The act provides **statutory framework in the form of legislation for prohibition of doping in sports** and enforcing anti-doping activities in the country.

Key features of the act

o **Prohibition of doping:** Act prohibits athletes, athlete support personnel and other persons from engaging in doping in sport. Anti-doping rule violation by an individual athlete or athlete support personnel may result in:

India's Initiatives

- **Gaganyaan mission** is expected to take off between 2024-25.
- **Indian National Space Promotion and Authorisation Centre (IN-SPACe)** seeks to promote active participation of the private sector in carrying out end-to-end space activities, and this includes space tourism.
- ✓ **Disqualification of results** including forfeiture of medals, points, and prizes,

- ✓ **Ineligibility to participate in a competition** or event for a prescribed period,
- ✓ **Financial sanctions,**
- ✓ **Consequences for team sports** which will be determined by the National Anti-Doping Disciplinary Panel after a hearing.

o **Incorporation of National Anti-Doping Agency (NADA):** Bill seeks to provide statutory framework for the functioning of the National Anti-Doping Agency (NADA), **empowering it to conduct raids besides strengthening measures to tackle drug abuse.**

- ✓ It will be headed by a **Director General appointed by the central government.**
- ✓ NADA established as societies under **Societies Registration Act**, will be dissolved and reconstituted.

o **Establishment and constitution of National Board for Anti-Doping in Sports:** It will make recommendations to the government on antidoping regulation and compliance with international commitments on anti doping.

- ✓ Board will **oversee the activities of the Agency** and issue directions to it.
- ✓ Board will **constitute a National AntiDoping Disciplinary Panel** for determining consequences of anti-doping rule violations.

- ✓ Board will also **constitute a National Anti-Doping Appeal Panel** which will consist of a chairperson (a retired High Court judge), a Vice-Chairperson (a legal expert), and 4 members (medical practitioners and retired eminent athletes).

o **Dope Testing Laboratories:** The existing National Dope Testing Laboratory will be deemed to be the principal dope testing laboratory. The central government may establish more National Dope Testing Laboratories.

About Doping

Doping is the **consumption of certain prohibited substances** by athletes to enhance performance.

- Although they enhance performance, there are **health risks involved in taking them and they're banned** by sports' governing bodies.
- Doping **threatens to undermine the spirit of fairness** that underpins sport.

Following types of substances are used in doping

Substances/Methods	Advantage provided
Androgenic agents like anabolic steroids	• Allow athletes to train harder and build more muscle.
Stimulants	• Make athletes more alert and can hide fatigue by increasing heart rate and blood flow.
Diuretics and masking agents	• To remove fluid from the body, which can hide other drug use or in sports like boxing and horse racing, can help competitors "make the weight".
Narcotic analgesics and cannabinoids	• To mask pain caused by injury or fatigue.
Peptide hormones	• Substances like EPO (Erythropoietin) which increase bulk, strength and red blood cells giving athletes more energy and HGH (Human Growth Hormone) which builds muscle.
Others	• Gene doping: Body cells or genes are manipulated by use of substances that improve performance.

National Dope Testing Laboratory (NDTL)

- NDTL was established with an aim **to get permanently accredited by International Olympic Committee (IOC) and WADA** to do the testing for the

banned drugs in human sports

- NDTL has **regained WADA accreditation** (suspended in 2019).

- ✓ The restoration of accreditation is a **boost to India's efforts to achieve the highest global standards of excellence in sport.**

- **Blood doping**, where blood is removed from the body and injected back in to boost oxygen levels.
- **Glucocorticoids** mask serious injury because they're anti-inflammatories and affect the metabolism and regulate glycogen and blood pressure levels.
- Things like **beta blockers** are banned in sports like archery and shooting because they keep the heart rate low and reduce tremble in the hands.

Monitoring of doping in Sports

o **World Anti-Doping Agency (WADA)** monitors doping in all kinds of competitive sports.

- ✓ WADA was **established in 1999 as an international independent agency** composed and funded equally by the sport movement and governments of the world.

o WADA **periodically updates its list of Prohibited Substances and Methods**. This includes steroids, anabolic agents, stimulants, and gene doping.

- ✓ Use of prohibited substances is exempted if needed for therapeutic use, as specified.

o WADA **monitors doping in sport based on the World Anti-Doping Code.**

- ✓ The Code provides a framework for antidoping policies, rules, and regulations for sport organizations and public authorities.
- ✓ **Any sportsperson competing in national or international events can be asked to give his/her blood and/or urine samples** at any point of time by anti-doping agency or sports events committee during the event.
- ✓ Testing can be conducted in-competition and out-of-competition.

o WADA **doesn't directly conduct tests rather it gives accreditation to laboratories.**

o At the national level, there is the **National Anti-Doping Agency (NADA)**, an independent body under Union Ministry of Sports. **Parliamentary Standing Committee on Education, Women, Children, Youth and Sports recommended following measures to improve and strengthen the anti-doping ecosystem in the country:**

- **Boosting education, regular counselling and awareness-raising measures** from grass root level and improving consequential awareness amongst elite athletes.
- **Starting more sports science and sports medicine courses** in various medical colleges/Universities to address the lack of qualified personnel in these fields.
- **“Dope-free” certification by independent bodies** should be made mandatory for supplements or nutraceuticals which are regularly consumed by athletes.
- **A distinction for minor athletes should be made** while formulating the rules so that a protective mechanism is available to them.
- **Early detection mechanism** and mandatory provision for having at least one certified sports medicine doctor at all sports camps which are organized for training of athletes.
- **Enforcing athletes' responsibility** towards protection of the integrity of sports by ensuring the proper compliance of the “whereabouts guidelines.

2. Autonomous Flying Wing Technology Demonstrator

Recently, **DRDO successfully carried out the maiden test flight of a new Unmanned Aerial Vehicle (UAV)**, an autonomous Flying Wing Technology Demonstrator

About Autonomous Flying Wing Technology

- It is an Unmanned Combat Aerial Vehicle (UCAV) or a **combat drone** that is a **flying wing type**.
- It is designed and developed by **Aeronautical Development Establishment (ADE)**, Bengaluru.
- The airframe, undercarriage and entire flight control and avionics systems used for the aircraft were developed indigenously.
- It is a **tailless fixed-wing aircraft which houses its payload and fuel in its main wings** and does not have a defined fuselage-like structure found in conventional aircrafts.
- It has a key operational advantage **because it has low**

reflective cross sections resulting in low radar signature, making it a stealth machine.

Polar Satellite Launch Vehicle (PSLV)

- It is the 3rd generation launch vehicle of India.
- It is the 1st Indian launch vehicle to be equipped with liquid stages.
- Notable launches are – Chandrayaan-1 in 2008 and Mars Orbiter Spacecraft in 2013.
- It is a four-stage launch vehicle –
 - ✓ A large solid rocket motor forming the 1st stage
 - ✓ An earth storable liquid stage as the 2nd stage
 - ✓ A high-performance solid rocket motor as 3rd stage
 - ✓ A liquid stage with engines as 4th stage
- Because of the shape, the aircraft **also has very low drag or air resistance.**
- This unique design also comes with its issues related to stability and thus requires additional systems.

Other Related Developments

- Rustom-2, the indigenous **Medium Altitude Long Endurance (MALE) UAV** under development, has crossed a milestone by reaching an altitude of 25,000 feet and an endurance of 10 hours and is being designed to reach an altitude of 30,000 feet and 18 hours endurance.
- The DRDO has in the past developed various drones, like **Nishant, Rustom, Tapas and Lakshya** among others, which have different capabilities and operational roles.

3. Anthrax

- It is also known as malignant pustule or woolsorter's disease.
- It is a serious infectious disease caused by gram-positive, rod-shaped bacteria known as *Bacillus anthracis*.
- Anthrax bacteria survive in the environment by forming spores. People get infected with anthrax when spores get into the body.
- It occurs naturally in soil and commonly affects domestic and wild animals.
- People can get sick if they come in contact with infected animals or contaminated animal products.
- Anthrax is not contagious, which means you can't catch it from another person like the cold or flu. But it's possible that anthrax skin lesions may be contagious through direct contact.

Treatment

- According to WHO, antibiotic therapy given in early stages of infection has proved to be responsive. Penicillin has long been the antibiotic of choice and in recent years, ciprofloxacin and doxycycline have also been used as alternatives.

4. ARYABHAT-1

- IISc researchers have built a prototype of **an analog chipset called ARYABHAT-1** (Analog Reconfigurable Technology and Bias-Scalable Hardware for AI Tasks).
- It will allow Artificial Intelligence and Machine Learning apps to perform much better and faster. Especially helpful for AI-based applications which deal with object or speech recognition systems, like Alexa or Siri
- It is **capable of running robustly across a wide range of temperatures as well as supports programming of different machine learning architectures.**
- It will use less power as compared to digital processors used in different electronic gadgets.
- Digital chips are used in many electronic devices, especially those require computers because design process is scalable and straightforward.

5. Large Hadron Collider (LHC)

- The European Organisation for Nuclear Research (CERN) has reignited the Large Hadron Collider for 3rd time.
- LHC, the **world's most powerful particle collider**, began breaking protons at energy levels that previously did not exist.
- It will operate round-the-clock for 4 years at unprecedented energy levels of 13 tera electron volts. (An electron volt is the energy given to an electron by accelerating it through 1 volt of electric potential difference).
- Now, scientists will record and analyse the data. This is likely to throw evidence of physics beyond the Standard Model of particle physics. Standard Model of particle physics is the theory which describes 3 of the 4 known fundamental

forces (electromagnetic, weak, and strong interactions, *not including gravitational force*) in the universe, as well as classifies all known elementary particles.

Previous Discovery

- **In 2012, scientists announced the discovery of the Higgs boson, or 'God particle'**, during the first run of the LHC.
 - The discovery ended decades-long search for a *force-carrying subatomic particle*, and proved the existence of the Higgs mechanism, a theory that emerged in the mid-sixties.
- Second Run: It began in 2015 and lasted till 2018. The second season of data taking produced five times more data than Run 1.
- India in 2016 became an associate member of CERN. India was inducted as an 'Observer' at CERN in 2004
- Indian scientists have played a significant role in the A Large Ion Collider Experiment (ALICE) and Compact Muon Solenoid (CMS) experiments that led to the discovery of the Higgs Boson.

6. TIHAN (TECHNOLOGY INNOVATION HUB ON AUTONOMOUS NAVIGATION)

- TiHAN, **India's first Autonomous Navigation facility** (for both ground and aerial vehicle testing), **was inaugurated at IIT Hyderabad.**
- TiHAN (by Ministry of Science & Technology) is a **multidisciplinary initiative** to make India a global player in futuristic and next generation '**smart mobility**' technology.
- **It will provide** industries, research and development labs, and academia **a platform for research in autonomous navigation.**
- It is one of the **25 technology innovation hubs** under **National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS)**

7. Wolbachia

- The scientists have been cross-breeding *local Aedes aegypti mosquitoes*, which transmit dengue, chikungunya and zika virus, with mosquitoes that carry the **Wolbachia bacteria**.
- The *Aedes aegypti* mosquito cannot spread these when they are artificially infected with a bacterium, *Wolbachia*.

About Wolbachia

- It is an extremely **common bacteria that occur naturally in 50% of insect species**, including some mosquitoes, fruit flies, moths, dragonflies and butterflies.
- However, *Wolbachia* is not usually found in the *Aedes aegypti* mosquito
- It **lives inside insect cells & are passed from one generation to next** through an insect's eggs.

Significance

- Independent risk analyses indicate that the release of **Wolbachia-infected mosquitoes poses negligible risk to humans and the environment**.
- The approach **could complement traditional methods such as insecticide sprays**, which often fail to control disease.
- Because the bacterium spreads on its own, **it could be more cost effective than population-reducing approaches** such as genetic engineering.

8. Marburg Virus Disease

WHO declared an outbreak of the highly-infectious Marburg virus in Ghana.

About Marburg Virus

- It's a **highly infectious viral haemorrhagic fever** belongs to the **same family as Ebola**.
- It has a **fatality ratio of up to 88%**.
- **Fruit bats** are the key **carriers of the disease**.

- Human-to-human transmission occurs through direct contact with the blood, secretions, organs, or other bodily fluids of infected people and with surfaces contaminated with these fluids.
- There are **no specific vaccines or antiviral treatments** to treat the disease. While the Ebola vaccine may potentially protect against a Marburg virus infection.

9. PIVOT

- The researchers at the IIT Madras have developed an **Artificial Intelligence (AI)-based tool, 'PIVOT'**.
- It is **capable of predicting cancer-causing genes** in patients.
- It is a machine learning tool which uses different kinds of data, such as mutation and gene expression, to predict cancer-causing genes, called driver genes, in a patient.
- This tool is **also capable to foresee new cancer-related genes** such as **PRKCA, SOX9 and PSMD4**.

10. Cervavac

The Drugs Controller General of India (DGCI) *granted market authorisation* for the Quadrivalent Human Papillomavirus vaccine (qHPV), Cervavac. Presently India is fully dependent on foreign manufacturers for the HPV vaccine.

About Cervavac

- It is the **country's first qHP vaccine manufactured** by Pune-based Serum Institute of India (SII).
- The vaccine **protects women against cervical cancer**.
- The vaccine can be **administered to those in the 9 -26 age group**.
- It is both affordable and accessible.

About HPV

- It is the most **common viral infection of the reproductive tract**.
- More than 90% of the infected population eventually clears the infection.
- **Cervical cancer is by far the most common HPV-related disease**.

Data on Cervical Cancer

- **Cervical cancer in India is the 2nd most frequent cancer among women.**
- It is a leading cancer among women, with about 132,000 cases and 74,000 deaths
-

- **annually in India**, according to the Indian Council of Medical Research (ICMR).
- **India contributes 17 % of the world's population but shares around 1/5th of the global cervical cancer burden.**

CULTURE

1. BILL TO STRENGTHEN ASI

According to the Lok Sabha bulletin, the **Ancient Monuments and Archaeological Sites and Remains (Amendment) Bill, 2022** has been listed for introduction and passage by the government.

About The Bill

- The proposed amendment would change **Section 20A** of the Act to rationalise the prohibited and regulated areas.
- **It will replace the provision which allows a 100-metre prohibited area for construction activity** around Centrally-protected monuments with site-specific limits to be decided by an expert committee.

- ✓ The Section 20 of the Ancient Monuments and Archaeological Sites and Remains (AMASR) Act, 1958, was amended in 2010 to declare the 100-metre radius of protected monuments as prohibited areas and the next 300-metre radius as regulated areas.

- **Expert monument committees** would decide the prohibited area around a particular monument and **activities permitted** herein

- ✓ **Specific laws:** Given the unique nature of each monument, the Act also proposes **heritage by-laws** for each monument to be prepared by an expert body.

- The **ASI would be given enforcement powers** like in the Forest Act which would empower it to act against

those encroaching at protested sites.

- The bill would also seek to **review the list** of protected sites under the ASI.

Concerns Related To New Legislation

- **Endangering The Commons:** Rezoning land around ASI-protected monuments into industrial, commercial, or even residential plots will thus deprive human & animal communities of much-needed commons.
- **Weaken Foundations:** Permitting construction work risks weakening the foundations of centuries-old edifices. For instance, Sacks of cement stacked against a frescoed wall can irreversibly abrade its surface.
- **Anthropogenic Forces:** For example, domestic waste and grey water which regularly seep into the subterranean sixth-century **sanctuary at Jogeshwari** in Mumbai. Air and water pollution continue to turn the white marble of the **Taj Mahal** yellow and green, and so on.
- **Worrying Consequences:** The artefacts long buried in layers of soil are at risk of being broken and their contexts destroyed by construction machines.
- **Constitution of Committee:** Concerns related to like who will determine the **make-up of committees** and **criteria** to be used by these committees is still unclear
- **Unclear Mandate:** It is also unclear about **redressal mechanisms** under new amendment and how it will empower the ASI as various statutory bodies like National Monuments Authority (under the Ministry of Culture), is already in place to help the ASI to fulfill its mandate.
- **No Archaeological Impact Assessment:** The Government has built new highways, metro-rail systems, and

industrial parks without methodical archaeological impact assessments which has led to the shattering of numerous historical artefacts.

Constitutional Provisions for Protection of Cultural Heritage

- **Fundamental Duties, Article 51 (A)** - It shall be the duty of every citizen of India to value and preserve the rich heritage of our composite culture.

- **DPSP, Article 49** - It shall be the obligation of the State to protect every monument or place or object of artistic or historic interest, declared by or under law made by Parliament

Schemes and Initiatives Related to Cultural Heritage

- **“Scheme for Safeguarding India’s Intangible Heritage and Diverse Cultural Traditions”**: To revive and revitalize various institutions and to strengthen, preserve, & promote India's rich intangible cultural heritage.

- **National Virtual Library**: To bring together all the information on India’s rich heritage.

- **The conservation portal of the ASI** is a tracking portal that checks all the conservation and developmental works that are done in India.

- The **retrieval of stolen antiques from abroad**, example - the bronze Nataraja and the stone object of Ardhnarishwara from Australia.

- **Swachh Smarak**: Polythene Free Zones are declared in ASI Protected Historical Monuments and Archaeological Sites. Major sites were designated as **Adarsh sites**.

- **Sanskriti App** allows to observe Indian cultural activities such as music, dance, and theatre. Literature, film presentations, and other forms of entertainment.

- **Rashtriya Sanskriti Mahotsav** held once a year to highlight India’s cultural heritage

About ASI

- It is the premier **organization under the Ministry of Culture for archaeological researches and protection of the cultural heritage of the nation**.

- It was founded in 1861 by Alexander Cunningham who also became its first Director-General.

- **The laws of the Ancient Monuments and Archaeological Sites and Remains Act (AMASR Act) of 1958**

govern all archaeological activity in the nation.

- After independence, the AMASR Act of 1958 established the **ASI as a statutory entity**.

- It also regulates the Antiquities and Art Treasure Act, 1972.

- For the maintenance of ancient monuments and

archaeological sites and remains of national importance the entire country is divided into **24 circles**.

- At present, 3,691 monuments nationwide are protected by ASI, with the **highest, 745, in Uttar Pradesh**.

2. Mangarh Hillock

- A team from **National Monuments Authority** recently submitted a report on declaring Mangarh hillock in Rajasthan as a monument of National Importance.

- The hillock, situated at the Gujarat-Rajasthan border, is a site of a tribal uprising where a massacre of over 1500 Bhil tribal freedom fighters took place.

- Facing harassment under the old feudal structure and then subsequently under British rule, the Bhils came together under the social reform movement, the **Bhagat Movement** started in 1908 by **Govind Giri**.

- On November 17, 1913, British forces opened fire on tribals gathered at the site who were holding a meeting in protest.

- Due to this, the place is also known as the **Adivasi Jallianwala**.

Bhils

- The Bhils are one of the largest tribal groups, living in Chhattisgarh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Andhra Pradesh and Rajasthan. They speak a language of Dravidian origin.

- The word Bhil comes from ‘**billu**’ which means **bow** in the Dravidian language.

- The community is also known as the **"Dhanush Purush of India"** for having an excellent knowledge of bows.

- Traditionally, experts in guerrilla warfare, most of them today are farmers and agricultural labourers. They are also *skilled sculptors*.

- Bhils have traditional medical specialists - Budwa (Male Shaman), Huvarki (Midwife), Vaidu (herbalist) and Had Vaidu (Bone setter) with some communities having male midwives.

- **Ghoomar** is a traditional folk dance of the Bhil tribe.

National Monuments Authority (NMA)

- NMA under the **Ministry of Culture** has been set up as per provisions of the **Ancient Monuments and Archaeological Sites and Remains AMASR (Amendment and Validation) Act, 2010**.

- Several functions have been assigned to the NMA for the *protection and preservation of monuments and sites* through management of the prohibited and regulated areas around the centrally protected monuments.

3. BONALU

- Bonalu, a traditional Hindu festival centred on the **Goddess Mahakali**, was recently celebrated.
- The festival is celebrated annually in the twin cities of Hyderabad and Secunderabad, and parts of Telangana.
- It is celebrated in the Hindu calendar month of **Ashada** that falls in July/August.
- Devotess offer **Bonam** (contraction of Bhojanam, which means a meal), containing cooked rice, jaggery, curd and neem leaves to the Goddess.
- During the festival, people also hold '**rangam**' or forecasting the future, organise processions and cultural events.
- The **Telangana** government accorded the status of **state festival** to Bonalu after the formation of the new state in 2014.

4. MODHERA SUN TEMPLE

- The government recently announced that the Ahmedabad Railway Station will be developed on the theme of Modhera Sun Temple in the next five years.
- Modhera Sun Temple is located in **Mehsana**, neighbouring Ahmedabad district.

- Situated on the bank of the **River Pushpavati**, it was built in the **11th century** during the reign of **Bhima I** of the **Chalukya dynasty** in honour of the Sun God.
- Though it is a Hindu temple, no worship is offered at the temple now.
- A **UNESCO World Heritage Site**, the temple complex has three components:
 - ✓ **Gudhamandapa**, the shrine hall
 - ✓ **Sabhamandapa**, the assembly hall
 - ✓ **Kunda**, the reservoir
- The Sabha Mandap stands on 52 pillars, signifying the 52 weeks in a year. There are carvings of the sun on the walls to show its unity with air, water, earth and space.
- The temple is designed in such a way that during every equinox, the first ray of the rising sun would fall on a diamond placed on the head of the Sun God.

GEO IAS
Miscellaneous

1. COOPERATIVES

Union Cooperation Minister Amit Shah has called the cooperative model a 'middle path' of economic development. He termed Capitalism and Communism as extreme models of economic development which have caused unbalanced development. He was addressing an event to mark the *100th International Day of Cooperatives*.

What Are Cooperatives ?

- Cooperatives are people-centred enterprises owned, controlled and run by and for their members to realise

their common economic, social, and cultural needs and aspirations.

- There are about **8.54 lakh cooperative societies**.
- They include 95,000 Primary Agricultural Cooperative Societies, **both credit and non-credit**. Currently, only **63,000 PACs are operational**.
- **Maharashtra has the highest number** of cooperative societies in the country.

Regulation of Cooperatives

- The item "Cooperative Societies" is in the **State List** (via entry 32).
- However, multistate cooperative societies are regulated by the **Multi State Cooperative Societies (MSCS) Act**,

2002.

✓ No state government official can exercise any control on multistate cooperative societies.

• In 2002, the then govt announced a National Policy on Cooperatives to support the promotion and development of cooperatives.

✓ The central govt is planning to bring a new cooperative policy soon.

• In July 2021, a new **Ministry of Cooperation** was created for cooperative societies in the country. It has been created with the vision of 'Sahakar se Samridhi' (Prosperity through Cooperatives).

97th Constitutional Amendment And Cooperatives

• The 97th constitutional amendment was passed by Parliament in December 2011.

• It dealt with issues related to effective management of co-operative societies in the country.

✓ It had amended Article 19(1)(c) to give protection to the cooperatives and inserted Article 43B and Part IXB, relating to them.

• In July 2021, Supreme Court quashed **part** of the 97th amendment.

✓ It held that the Parliament could not have introduced a law regulating cooperative societies within states, without first getting it *ratified from half of the state legislatures*.

• However, the SC stated that the act will remain valid with regard to multistate cooperative societies.

Success Stories

• In 2020-21, Amul's group turnover has crossed Rs. 53 thousand crore and 36 lakh farmer families are associated with it, and it has especially empowered women.

• In 1959, Jaswantiben Popat started Lijjat Papad. In 2019, her business was more than Rs.1,600 crore and around 45,000 women are associated with Lijjat's cooperative movement.

• IFFCO, as a society was formed in 1967 and today it has grown by making more than 36,000 cooperative members. It has worked to give a new direction to the Green Revolution.

Key Highlights Of The Speech

• **Significance of cooperatives highlighted:** Mr Amit Shah said that the cooperatives accounts for

- a. 19% of agricultural credit
- b. 35% of fertiliser distribution
- c. 25% of fertiliser production
- d. 31% of sugar production
- e. 10% of production of milk
- f. 13% of wheat procurement
- g. 20% of paddy procurement
- h. 21% of fish production

• So, cooperatives are an important tool to promote **inclusive development**.

Challenges Associated

• **Excessive Cooperative Legislations:** Cooperatives in India function in different sectors. "Cooperatives" is a State subject and State cooperative laws and their implementation vastly differ.

• **Political Interference:** This is the biggest problem faced by Sugar cooperatives in Maharashtra.

• **Lack of Coordination:** Different cooperatives, at different level, don't coordinate amongst themselves; making the work of cooperatives difficult.

• **Non-accountability:** The government gave too many benefits to cooperatives, but then there was no further accountability which led to these cooperatives becoming more and more lethargic and inefficient.

• **Vested Interest of Some People:** Many times people, who are in control of cooperatives, are actually people who have joined cooperatives for personal gains.

• **Functional Weakness:** The Co-operative Movement has suffered from inadequacy of trained personnel. Also, they have been unable to attract and retain competent professionals.

• **Internal Free Rider Problem:** New members who provide very little capital enjoy the same benefits as longstanding or founding members who have major investments in the cooperative.

• **No Balanced Growth:** The cooperatives in northeast areas and in areas like West Bengal, Bihar, Orissa are not as well developed as the ones in Maharashtra and the ones in Gujarat.

• **Lack of Efforts for Capital Formation** particularly that concern enhancing member equity & member stake.

• **Instances when credit societies have launched ponzi schemes taking advantage of these loopholes:** Fly-bynight operators get people to invest and, after a few instalments, wind up their operations.

• **Mismanagement and Manipulation:** A hugely large membership turns out to be mismanaged unless some secure methods are employed to manage such co-operatives.

• **Irresponsibility and Unaccountability:** Serious inadequacies in governance including that related to Boards' roles and responsibilities. The people on the board are not held accountable for many inconveniences.

• **Lack of Awareness:** People are not well informed about the objectives of the Movement, rules and regulations of co-operative institutions

Key Suggestions on New Cooperative Policy

• **Foreign Direct Investment:** Allow FDI in cooperative sector, particularly in PACS to improve infrastructure.

• **Upper age limit:** Fix an upper age limit of 70 years for board members in cooperative societies.

- **Technology upgradation:** Creation of a technology upgradation fund.
- **Land available with PACS** can be leveraged for expanding the resource base of cooperative societies. PACS have more land than the Railways.
- **Sahakar se Bajar:** PACS should be given better market linkages under the label "Sahakar se Bajar" (cooperative to market).
- **Electronic voting** to be implemented in cooperative societies.
- **Lease to private company:** Storage facilities available with PACS to be leased out to private e-commerce operators.

2. NO. OF GIRLS ADOPTED IN INDIA OUTSTRIPS BOYS

Of the 2,991 domestic 'in-country' adoptions made between 2021 and 2022, as many as 1,698 were girls. A closer look at the data from 2013-14 onwards, uploaded on the website of the **Central Adoption Resource Authority (CARA)**, confirms that more girls are given for adoption in India than boys.

- While this indicates that more couples are willingly adopting girls and shows a change in mindset, it also brings into focus the fact that *often there are many more girls who are abandoned at birth than boys*.

Legal Provisions

- In India, two legislations deal with the adoption of a child:
 - ✓ The Hindu Adoption and Maintenance Act, 1956 (HAMA)
 - ✓ The Juvenile Justice (Care and Protection of Children) Act, 2015

This includes Juvenile Justice (Care and Protection of Children) Model Rules, 2016 and Adoption Regulations, 2017.

- CARA functions as the nodal agency for adoption in India and inter-country adoptions.
- A database of children and registration of prospective parents is done on a centralised Child Adoption Resource Information and Guidance System (CARINGS), which is maintained by CARA.
- Juvenile Justice (Care and Protection) Amendment Act 2021 provides that instead of the court, the district magistrate has the authority to issue adoption orders.

Child Adoption During Covid-19 Pandemic

- According to UNICEF, India has 2.96 crore orphaned or abandoned children.
- In its annual report 2020-21, the Ministry of Women and Child Development noted that 2.56 lakh children were living in 7,164 Child Care Institutions (CCIs) in the

country.

Reasons Behind Low Level Adoption In India

• Long And Rigorous Adoption Process

✓ First, orphaned or abandoned children must be brought before the *District Child Welfare Committee* and placed in a CCI under the Juvenile Justice Act of 2015.

✓ An effort is then made to track their immediate or extended families and reunite them; if this fails, the child welfare committee, a quasi-judicial body, has to deem the child legally free for adoption.

✓ The District Child Protection Unit (DCPU) links them to an adoption agency and the child is registered with CARA.

✓ A medical report is prepared and the child is then matched with a prospective parent after a home study is undertaken by CARA authorities.

• Not Enough Children Available For Adoption

While some 28,000 prospective parents have currently registered to adopt, less than a tenth the number of children (2,200) are legally free for adoption.

Suggestions

- Reforms are needed to bring in more children from CCIs into the adoption pool. For this, there is need to shorten the inordinate waiting time: some of these prospective parents had registered with CARA as early as 2018.
- There is a need to develop processes to ensure that child welfare committees bring every possible child into the legal adoption pool and ensure that the kids are not stuck in CCIs.

3. FCRA , 2022

Why in News?

Recently, the Central Government notified the **Foreign Contribution (Regulation) Amendment Rules, 2022** to reduce compliance burden on citizens.

More on News

- Amending the **Foreign Contribution (Regulation) Rules, 2011**, now individuals can send up to ₹10 lakh without informing the government.

- ✓ If the amount exceeds ₹10 lakh, the individuals will have three months to inform the government against 30 days earlier.
- ✓ The entities that can receive this includes political parties, legislature members, election candidates, government servants, judges,

journalists, and media houses- who were all barred earlier from receiving foreign contribution.

- The **time limit prescribed for intimation to Central Government** for application of obtaining 'registration' or 'prior permission' under the FCRA to receive funds has been **increased from 15 days to 45 days**.

- Also, in a separate notification, the **list of compoundable offences under FCRA was increased to 12 from 7**.

- ✓ **Compoundable offences** are those where the complainant can agree to take back the charges levied against the accused.

FCRA: Purpose and Provisions

- Foreign contribution means the donation, delivery or transfer made by any foreign source of any article, currency, or security.

- o FCRA is implemented by the **Ministry of Home Affairs (MHA)**, supported by Intelligence Bureau in approvals and rejections through investigation on antecedents. The government orders can be challenged in the **High Court**.

Major Provisions (post 2020 amendment): Applicable across India, on Indian citizens outside India, all associations, groups, and NGOs, it:

- **Prohibits the receipt of foreign funds** by candidates for elections; journalists or newspaper and media broadcast companies; public servant, Judge, Government servants or employee, members of legislature and political parties etc. (**amended by the Foreign Contribution (Regulation) Amendment Rules, 2022**)

- **Prior Permission to receive foreign funds** though registration with mandatory Aadhaar submission of every office bearer of the NGOs.

- **Designated FCRA Account** in such branches of the **State Bank of India, New Delhi** to receive funds. **No funds** other than the **foreign contribution** can be received or deposited in it and it can't be transferred to any other person or NGO.

- **Validity of FCRA registration** is five years and NGOs are expected to apply for renewal **within six months of the date of expiry** of registration.

- **Use of funds is limited** to the purpose for which it was received with a maximum limit of 20% (earlier 50%) to meet **administrative expenses**.

- **Compulsory filing of annual returns** and in case of contraventions, government can restrict usage of unutilized foreign contribution after an inquiry.

Importance of FCRA

FCRA aims to protect **national interests** so that it functions in a manner consistent with the values of a **sovereign democratic republic**.

- **Maintaining Economic Growth and Development:**

There have been allegations that some foreign-funded NGOs deliberately protest developmental projects (mining, power projects etc.) which hurt India's growth.

- **Protection of Indian Society and Culture:** Foreign contributions are often used for socio-cultural activities which creates threat to Indian diversity and internal security.

- ✓ E.g. Government barred **Compassion International** in 2016 from funding NGOs in India over allegations of religious conversion.

- **Political Independence:** Global ideological organisations use foreign contributions to impose their own political ideology. Some NGOs also misuse it for political purposes.

- ✓ E.g. Ford Foundation funding was placed under the "**prior approval category**" in 2015.

- **Sovereignty and Friendly-foreign Relations:** FCRA helps in avoiding foreign influence over government decision-making and its relations with other countries.

- ✓ E.g. Foreign-funded NGOs protest against the Kudankulam Nuclear Power Plant Project (KKNPP) of India and Russia.

- **Transparency and Accountability in NGOs:**

Regulations and necessary compliances under FCRA help in making NGOs transparent and accountable in their functioning by:

- ✓ **Identifying financial irregularities** among foreign-funded NGOs.
- ✓ **Ensure intended utilization of funds.**

Concerns over FCRA

In the last few years, due to financial irregularities or other reasons, a number of NGO registrations have either been cancelled or not renewed (see **image**). This includes many global NGOs leading to various concerns such as:

- **Targeting of NGOs** due to political or ideological differences through misuse of FCRA as a tool for licensing or rejecting activities.

- **Hurt NGOs Functioning** due to limitations on administrative expenses and increased compliance burden.

- **Violation of Right to Equality, Right to Privacy, Freedom of Association and independent functioning** through

limitations on bank account, mandatory Aadhaar submission of every office-bearer, prohibitions on transfer etc.

- ✓ E.g., No transfer of funds to other NGOs limit collaboration among NGOs.

- **Against Democratic values and Ethos of India** which has multiple interest groups with the vital role of NGOs to create awareness among them and protection of their rights.

Way Forward

The Supreme Court has upheld the **constitutional validity** of FCRA as receiving of foreign donations **cannot be an absolute right** and parliament can **regulate it**. Also, it is a **moral obligation** on NGOs to follow regulations for accountability. But these regulations should always be used in the context of **larger public interest while protecting individual rights** through-

- An **objective and fully transparent process** with searchable database on NGOs.
- **Use of technology** for easy compliance.
- **Reasonable opportunities** for individuals or NGOs of being heard.
- **Decentralization or Delegation of responsibilities** to have participation from State/Local Government as recommended by the Second Administrative Reforms Commission (2nd ARC).

4. SUB-CATEGORISATION OF OBCS

- The Centre government extended the tenure of **Commission to Examine Sub-categorisation of Other Backward Classes (OBCs)** headed by Justice G Rohini.

- The Commission now has until January 31 2023, to submit its report.

- It was **set up by the President in October 2017 under Article 340** of the Constitution.

Terms Of Reference Of The Commission

- To **investigate the extent of inequitable distribution** of “*reservation benefits*” among castes or communities in the broad category of OBCs.
- To develop the mechanism, criteria, norms and parameters for sub-categorisation within such OBCs using a scientific approach.
- To **begin the process of identifying and classifying** the respective castes, communities, sub-castes in the Central List of OBCs.
- To **review various entries in the Central List of OBCs** and recommend changes to any repetitions, ambiguities, inconsistencies, or spelling or transcription errors (added in 2020).

About Sub-Categorisation of OBCs

- OBCs are granted **27% reservation in jobs and education** under the central government.
- The sub-categorisation is being demanded as a **handful of total communities get a major chunk of the reserved jobs and seats in educational institutes**.
- 10 States/UTs have already sub-categorised OBCs: Andhra Pradesh, Telangana, Puducherry, Karnataka,

Haryana, Jharkhand, West Bengal, Bihar, Maharashtra, and Tamil Nadu.

What Have Been Commission's Findings So Far?

- According to 2018 data, **just 10 OBC communities have taken 25% of reserved central jobs and institutional seats**.
- Also, **97% of the reserved jobs and seats have gone to 25% of OBC sub-castes**.
- As many as 983 (37% of 2,600) communities under OBC category have zero representation in jobs and institutes.
- **994 OBC sub-castes have a total representation of only 2.68% in recruitment and admissions**.

History of OBC Reservations

- **Kalelkar Commission, set up in 1953**, was the 1st to identify backward classes other than the Scheduled Castes and Scheduled Tribes at the national level.

- **Mandal Commission report of 1980** estimated OBC population at 52% and classified 1,257 communities as backward. It recommended increasing the existing quotas, which were only for SC/ST, from 22.5% to 49.5% to include the OBCs.

- In **1991 a 10% quota was introduced** for the “economically backward sections” among the forward castes.

Supreme Court struck this down in *Indra Sawhney vs Union of India* case, where it held that the Constitution recognised only social & educational & not economic backwardness.

- The **central government reserved 27% of seats in union civil posts and services** for OBCs [Article 16(4)]. The quotas were subsequently enforced in central government educational institutions [Article 15 (4)].
- In **2008**, the Supreme Court directed the central government to **exclude the creamy layer (advanced sections) among the OBCs**.

- In 2015, the **National Commission for Backward Classes (NCBC) recommended** that OBCs should be classified into extremely backward classes, more backward classes and backward classes.

✓ The 102nd Constitution Amendment Act, 2018 provided constitutional status to NCBC, which was previously a statutory body under Ministry of Social Justice and Empowerment.

Challenges in Sub-categorisation

- At present it is a major challenge to identify the most disadvantaged among the population eligible for so called reservation. This is mainly because **there is a lack of reliable nationwide data on caste**.

- **The Socio-Economic Caste Census (SECC) of 2011** also does not give a true picture of the socio-economic disadvantages faced by different caste groups.
- **Political issue:** The regional parties championing the interests of dominant OBC castes are likely to oppose such sub-categorisation.

Way Forward

- We have to **do proper OBC enumeration** so we can sub-classify.
- It should be **practical and appropriate** so as to lead to beneficial results. Sub-categorization into different categories **should not hurt the sentiments of any group**.

5. SUPREME COURT ON MINORITY STATUS

- The Supreme Court said that the religious and linguistic minority status of a community is to be decided on the basis of the state's population.
- The SC court made this observation while hearing a petition filed by a Mathura resident, Devkinandan Thakur. As per the petition, followers of Judaism, Bahaism and Hinduism are the real minorities in various state. They cannot establish and administer educational institutions of their choice because of nonidentification of 'minority' at State level.
- The petitioner challenged the provisions of the National Commission for Minorities (NCM) Act, 1992 and National Commission for Minorities Educational Institutions (NCMEI) Act, 2004.

About Minorities In India

- The term Minority is not defined in the Indian Constitution. However, the Constitution recognises only religious and linguistic minorities.

Religious Minorities

- **The basic ground for a community to be nominated as a religious minority is the numerical strength of the community.**

Linguistic Minorities

- **Class or group of people whose mother tongue is different from that of the majority groups is known as the linguistic minorities**
- As per Census 2011, the percentage of minorities in country is about 19.3% of total population.
- The population of Muslims are 14.2%; Christians 2.3%; Sikhs 1.7%, Buddhists 0.7%, Jain 0.4% and Parsis 0.006%.
- As per 2011 census, Hindus have become a minority in

Lakshadweep (2.5%), Mizoram (2.75%), Nagaland (8.75%), Meghalaya (11.53%), J&K (28.44%), Arunachal (29%), Manipur (31.39%), and Punjab (38.40%).

About Religious Minorities

- The **central government decides** who gets the minority community status in India under the **National Commission for Minorities Act, 1992**. Only those belonging to the communities notified under Section 2(c) of 1992 Law are regarded as minority citizens.
- The **central government has notified only six communities** as minority at the national level.
- Five of them - **Muslims, Christians, Sikhs, Buddhists and Parsis** - were declared minority communities in October 1993. In January 2014, the Centre added Jains to the list.
- **States generally don't have their separate lists of minority communities.**
- But there are exceptions. For example, Maharashtra has notified Jews as a minority community in state.

Constitutional Provisions For Minorities

- The subject of **identification of minority community is on the Concurrent List.**

✓ **Article 246** of the constitution read with Entry 20, 'Economic planning and social planning', of the concurrent list of 7th schedule to enact laws to *promote and protect the interests of minorities*.

- **Article 29** - It protects the interests of the minorities by making a provision that any citizen / section of citizens having a *distinct language, script or culture* have the right to conserve the same.

- **Article 30** - It says all minorities, whether based on religion or language, shall have the right to establish and administer educational institutions of their choice.

- **Article 350(B)** - There shall be a Special Officer for linguistic minorities to be appointed by the President.

Various SC Judgements Dealing With Minorities

- **DAV College vs State of Punjab 1971** - The court held that the Arya Samaj, who were Hindus, were a religious minority in the state of Punjab, even though they may not have been so in relation to the entire country.

- **TMA Pai Case 2003** - The 11-judge bench of the apex Court stated that for the purposes of Article 30, religious and linguistic minorities have to be *considered state-wise*.

- **Bal Patil 2005** - SC in its judgement in 'Bal Patil' referred to TMA Pai ruling. In this judgement, the court said that henceforth the unit for determining status of both linguistic and religious minorities would be *state*.

- **Inamdar Case 2005** - The SC said that Minority whether linguistic or religious is to be determined by the *demography of state*.

Steps Taken by Government for Minorities

- **Ministry of Minority Affairs** - It was created in 2006 to ensure a more focused approach towards issues relating to the minorities.

- **Prime Minister's 15 Point Programme for the Welfare of Minorities** - Objective of the Programme is to ensure that an appropriate percentage of the priority sector lending should be targeted for the minority communities. It also provides that, wherever possible, 15% of targets and outlays under various schemes should be earmarked for minorities

- **Schemes** - Educational Empowerment Scholarship Schemes, Padho Pardesh Scheme of Interest Subsidy on Educational Loans for Overseas Studies for the Students Belonging to the Minority Communities, USTTAD, Nai Roshni - The Leadership Development of Minority Women.

6. UN OCEAN CONFERENCE (UNOC), 2022

- The second UNOC ended with the **Lisbon Declaration**, a political declaration entitled '**Our Ocean, Our Future: call for action**'.

- ✓ It is co-hosted by **Kenya and Portugal** at **Lisbon**
- ✓ In 2017, first UNOC was held at UN Headquarters in New York, co-hosted by the Governments of **Fiji and Sweden**.

- As part of it, over **150** countries collectively agreed to **scale up science-based and innovative actions** to address ocean emergency, supporting the implementation of **SDG 14 (Life Below Water)**.

- ✓ This is in line with the United Nations Decade of Ocean Science for Sustainable Development (2021- 2030).

Key Highlights

- ✓ Emphasized the particular importance of **implementing the Paris Agreement (2015) and Glasgow Climate Pact** to help ensure the health, productivity, sustainable use, and resilience of the ocean.
- ✓ **States** made voluntary commitments to conserve or protect **at least 30% of the global ocean** within Marine Protected Areas, and other effective **area-based conservation measures**, by 2030.
- ✓ India committed to a **Coastal Clean Seas Campaign** and will work toward a ban on single use plastics.

- UNESCO launched its key **State of the Ocean Report (pilot edition)** during the event. Key recommendations include:

- ✓ Strengthen the ocean **science-policy interface**.
- ✓ Act to create a **theoretical basis for sustainable ocean planning and management**, within and beyond areas of national jurisdiction.

UN Decade of Ocean Science for Sustainable Development 2021 – 2030

The Decade provides a common framework to ensure that ocean science can fully support countries' actions to sustainably manage the ocean and more particularly to achieve the 2030 Agenda for Sustainable Development.

7. EIA RULES AMENDED

The Ministry of Environment, Forests and Climate Change has notified amendments to the Environment Impact Assessment (EIA) Rules.

Amendments in EIA Rule

- **Strategic and Defence Projects** - Exempted strategic and defence-related highway projects, including those located 100 km from the Line of Control, from the need for an environmental review before construction.

- **Power Plants** – Thermal power plants up to 15 MW based on biomass or non-hazardous municipal solid waste using auxiliary fuel such as coal, lignite or petroleum products up to 15%, have also been given an exemption as long as the fuel mix is eco-friendly.

- **Ports and Harbour Dealing in Fish** with less pollution potential compared to others, and caters to small fishermen, are exempted from environmental clearance.

- **Toll Plazas** – Toll Plaza that need more width for installation of toll collection booths to cater to a large number of vehicles are exempted.

- **Airport** - Expansion activities in existing airports related to terminal building expansion without increase in the airport's existing area, rather than expansion of runways also exempted.

Significance Of The Amendments

- It will improve the investment climate in these sectors.
- It will create jobs and support livelihood especially poor fishermen.
- It will ease the traffic flow on congested highways.
- It will faster the infrastructure development in strategic areas like border areas. Now Char Dham road widening Project in the Bhagirathi eco-sensitive zone stretch will not need EIA clarification.

About EIA

It can be defined as the study to predict the effect of a proposed activity/project on the environment. EIA in India is statutorily backed by the Environment Protection Act, 1986.

Different Stages of EIA Process

- **Screening** - Which projects need a full or partial assessment (EIA) is decided in this stage.
- **Scoping** - This stage identifies the key issues and impacts that should be further investigated. This stage also defines the boundary and time limit of the study.
- **Impact analysis** - This stage of EIA identifies and predicts the likely environmental and social impact of the proposed project and evaluates the significance.
- **Mitigation** - This step in EIA recommends the actions to reduce and avoid the potential adverse environmental consequences of development activities.
- **Reporting** - This stage presents the result of EIA in the form of a report to the decision-making body and other interested parties.
- **Public hearing** - On completion of the EIA report, public and environmental groups living close to the project site may be informed and consulted at this stage.
- The fate of the project is decided. Whether the project is to be given approval or not and if it is to be given, under what conditions. Appraisal means the detailed scrutiny by the Expert Appraisal Committee or State Level Expert Appraisal Committee of the application & other documents for grant of environmental clearance ✓ Based on the recommendations of the Expert Appraisal Committee, environmental clearance is accorded or rejected to the project by MoEF&CC.
- **Monitoring and implementation of environmental management plan** - The various phases of implementation of the project are monitored in this stage.

EIA Category A/B

- To decentralize the process of project clearance, the EIA Notification 2006 has categorized the projects into two categories namely;
- Category 'A' and Category 'B' based on their impact potential.
 - o Category 'A' projects will be appraised at the Central level while Category 'B' project at the State level.
 - o **Category A** projects requires mandatory environmental clearance and thus they do not have to undergo the screening process.
 - o **Category B** projects undergo a screening process and are further classified into B1 (Mandatorily requiring EIA) and B2 (Not requiring EIA).

Significance of EIA	Drawbacks of EIA
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<ul style="list-style-type: none">• It links the environment with development for <i>environmentally safe and sustainable development</i>.• It provides a <i>cost-effective way to eliminate or reduce the adverse impact of developmental projects</i>.• It enables <i>decision makers to analyse the impact of developmental activities on the environment before the implementation of the developmental project</i>.	<ul style="list-style-type: none">• It is a <i>time-consuming process</i> that may be depicted as withholding the pace of developmental activities.• There is <i>little public participation</i> in actual implementation.• It sometimes focuses <i>too much on the scientific analysis</i> and the real-time impact is neglected.• Impact assessment processes are in place and applied in many countries, yet biodiversity is often inadequately addressed.
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Way Forward

- **Sector wide EIA is needed** - There is a need to conduct policy-level and sector-wide EIAs in the form of strategic impact assessments for various sectors including mining, power.
- **Improve quality of EIA reports** - The checklist needs to include agricultural biodiversity, traditional knowledge related to biodiversity and impact on livelihoods.
- **Public Hearings** - Public hearings should be held for all projects that are likely to have environmental and social impact. This should be strictly implemented.

8. FOREST (CONSERVATION) RULES, 2022

Ministry of Environment Forests and Climate Change (MoEFCC) notified the Forest (Conservation) Rules, 2022, under the Forest Conservation Act, 1980. It has, thus, replaced the Forest (Conservation) Rules, 2003.

The Forest (Conservation) Act (FCA), 1980 Need For FCA

Though the Indian Forests Act is in effect since 1927, it was designed not to preserve forests or combat

deforestation, but to allow the Colonial British authority to control timber extraction.

About FCA

- The FCA is the principal legislation that regulates deforestation in the country. It prohibits the felling of forests for any “non-forestry” use *without prior clearance by the central government*.
- Thus, it creates an institutional mechanism, prescribing procedures for the orderly approval and handing over of forest land to user agencies for diversion for non-forestry purposes.
- These result in deforestation, ranging from “clear felling” to “selective felling” as required by the user agency.
- It is a brief legislation with only five sections -
 - ✓ **Section 1** defines the extent of coverage of the law.
 - ✓ **Section 2** restricts activities in forest areas
 - ✓ The rest deals with the creation of advisory committees, powers of rule-making and penalties.
- The clearance process includes seeking consent from local forest rights-holders and from wildlife authorities. The Centre is empowered to reject such requests or allow it with legally binding conditions.

Forest (Conservation) Rules, 2022

These affirm that “clear felling” is indeed the **removal of all natural vegetation** from land of size 1 hectare (ha and) above, by felling, burning or uprooting.

o It excludes “selection felling” which was there in the 2003 Rules.

Earlier, workflow was deemed cumbersome and the Ministry has now replaced it with a machinery consisting of a project screening committee, an integrated regional office, a few designated officers and an advisory committee at the Ministry.

o And they are all under the control of the forest bureaucracy.

Tree plantation, dubbed “surrogate forests” in the new Rules, now comes under the section of “compensatory afforestation.” Compliance with the Forest Rights Act (FRA), 2006, is not at all required for the final approval for forest diversion, given by the Ministry.

The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition Of Forest Rights) Act, 2006 or the Forest Rights Act (FRA), 2006

- It recognizes the rights of forest dwelling tribal communities and other traditional forest dwellers to forest resources on which these communities rely for a

variety of needs such as livelihood, habitation, and other socio-cultural needs.

- The Act encompasses –

➤ **Individual Rights:** Rights of Self-cultivation & Habitation

➤ **Community Rights** as Grazing, Fishing and access to Water bodies in forests;

➤ **Habitat Rights** for Particularly Vulnerable Tribal Groups (PVTGs),

➤ **Recognition of traditional customary rights and right to protect**, regenerate or conserve or manage any community forest resource for sustainable use, etc.

➤ **Right To Allocation Of Forest Land For Developmental Purposes** to fulfil basic infrastructural needs of the community.

➤ In conjunction with the **Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Settlement Act, 2013**, FRA protects the tribal population from eviction without rehabilitation and settlement.

- The Act further enjoins upon the **Gram Sabha and rights holders** the responsibility of conservation and protection of biodiversity as well as to stop any destructive practices affecting these resources or cultural and natural heritage of the tribals.

Objections About The New Rules

- The latest version of rule allows forest land to be diverted to industry without settling questions of the rights of forest dwellers and tribals.
- The FRA makes it mandatory to seek free, prior and informed consent of families who would be affected by such diversion of forest land.
 - The new rules destroyed the very purpose of the FRA as once a forest clearance was granted (in this case by a Centre-constituted Forest Advisory Committee), no claims by forest dwellers and tribals would be recognised and settled.
- The State governments will be under even greater pressure from the Centre to accelerate the process of diversion of forest land.
 - Under the FRA, states are in charge of diverting forests for non-forestry uses and the

Union Tribal Affairs Ministry regularly reviewed the implementation of the Act.

- Though permission from the Gram Sabha was not required to divert forest land in the past, its verdict had significant persuasive power.

➤ As a result, the new rules **undermined the role of Gram Sabha**, whose approval was required for any large-scale diversion that did not involve linear projects (linear projects are construction of roads, highways, railways and are exempt from Gram Sabha approvals).

9. FIRST MEETING OF MULTI-AGENCY MARITIME SECURITY GROUP

National Security Adviser (NSA) Ajit Doval participated in the **first meeting of the Multi-Agency Maritime Security Group (MAMSG)**. The meeting was chaired by Vice Admiral G Ashok Kumar (ret'd), the country's first National Maritime Security Coordinator.

Importance Of Indian Maritime Security

1. Maritime Security Of Vast Coastlines

- India has along 7,516-km coastline, including island territories, and a 2 million sq km Exclusive Economic Zone (EEZ).
- The importance of maritime security was evident following the 26/11 Mumbai terror attack.
- In the changing geopolitical scenario, the Indian Ocean, which has been an ocean of peace, is gradually becoming competitive. The region has the potential to witness clash of interests.

2. Economic And Energy Security

- 90% of India's trade by volume and 70% by value transit through the seas.
- The Indian government is set to clear the **Deep Ocean Mission** for the blue water economy.
- Security at the high seas and economic wellbeing is inextricably linked and all stakeholders must work unitedly.

✓ The more India develops, the more assets it creates, greater would be the vulnerability and the need for security in maritime domain.

3. Geostrategic Need

- China is penetrating into the Indian Ocean through Pakistan and Myanmar.
- Enhanced maritime security will give a boost to India's **SAGAR (Security and Growth of All in the Region)** doctrine. Under this doctrine, India has envisioned a role of *net security provider* in the IOR.

- A Freedom of Navigation Operations (**FONOP**) was conducted in the Indian Territory in April 2021 by the US.

➤ The American Naval cruiser USS John Paul Jones transgressed into the Indian Islands of Lakshadweep, well within India's Exclusive Economic Zone causing a farrago of events.

4. Maritime Borders Are Different From Land Borders

One cannot fence the maritime borders, and disputes in seas are resolved through international norms and laws, while land disputes are bilateral in nature.

Mechanism

- **Coastal border management** was institutionalized in 2004 with the establishment of the *Department of Border Management* in the MHA.

• However, after the '26/11' attacks, coastal and maritime security underwent a paradigm shift. These included:

- **A three-tier security grid** the Indian Navy, the coast guard, and the marine police;
- **Increased electronic surveillance** using Coastal radar chain, Automatic identification system (AIS), Vessel traffic management and information system
- Establishment of the National Command Control Communication and Intelligence (**NC3I**) Network;
- **Sagar Prahari Bal** for protecting naval bases has been raised by Navy;
- Establishment of **Information Fusion Centre – Indian Ocean Region (IFC-IOR)**.

Associated Issues

- There are **no formal or commonly accepted definitions** of concepts like 'maritime security', 'coastal security' and 'coastal defence'. Sometimes, it leads to vagueness.
- **Multiple institutions** are involved and there is lack of coordination.
- **Turf war** between MHA and Ministry of Defence (MoD). Demands are being made to bring Coast Guard under the control of MHA.
- Fishermen are considered as eyes and ears for coastal security. However, **discontent among fishermen community**, politicisation of fishermen issues etc. are further complicating the security architecture.
- Inadequate infrastructure, acute shortage of manpower is posing challenges in providing maritime security in India.

Conclusion

- India is determined to strengthen its maritime security that would protect and support legitimate maritime activities while countering traditional and non-traditional threats in the maritime domain.

- It is evident from the fact that, during India's presidency of UNSC, **maritime security was deliberated for the first time** in a holistic manner as an exclusive agenda item in a high-level global forum.

- UN Security Council Open Debate on "Enhancing Maritime Security: A Case for International Cooperation" was **held** in August 2021 and it was presided over by PM Modi.

Key Highlights Of Open Debate On Maritime Security Held By UNSC

A. Five-point Agenda forwarded by PM to enhance maritime cooperation are –

B. Primacy of the UNCLOS (United Nations Convention on the Law of the Sea) - An **outcome document**, in this regard, was adopted.

C. India's Role as the Net Security Provider for the Indian Ocean region. He referred to Indian Navy's anti-piracy patrolling, India's support to other nations under **SAGAR Doctrine**, hydrographic survey conducted by India & enhancing maritime domain awareness.

10 . I2U2 (INDIA-ISRAEL-UAE-USA)

The **first** Leaders' Summit of I2U2 (India-Israel-UAE-USA) was held virtually in July 2022. PM Modi, along with PM of Israel, President of the UAE and President of USA, participated in the Summit.

About I2U2 Group

- * I2U2 is a diplomatic group of the India, Israel, UAE and United States.
 - US Secretary of State Antony Blinken has used the I2-U2 moniker for the four-member grouping.
- * The grouping was launched in October 2021 when the first virtual meeting of the foreign ministers of India, Israel, US and UAE took place.
- * The new grouping is described as an international forum for economic cooperation.
- * This grouping is already being termed as a **New Quad** or the **'Middle-Eastern Quad'**.
- * Objective – To generate synergies that go beyond government level cooperation.

Areas of cooperation

- * The grouping will focus on expanding economic and political cooperation in Asia and Middle East through energy cooperation, trade, transportation, global public health, infra, coordination on vital shared interests and combating climate change.
- * The group **does not have a military angle** to it and it only features cooperation in maritime security.

Key Highlights Of The Summit

1. Objective Of The Summit

- To encourage joint investments in **6 mutually identified areas** such as *water, energy, transportation, space, health, and food security*.
- It intends to mobilize *private sector capital and expertise* to help:

2. Focused On Food Security Crisis And Clean Energy

The leaders discussed innovative ways to ensure longer-term, more diversified food production and food delivery systems that can better manage global food shocks.

3. AIM For Climate

- The participating leaders welcomed India's interest in joining the United States, UAE, and Israel in the **Agriculture Innovation Mission for Climate initiative** (AIM for Climate/AIM4C).
- Launched in November 2021, on the sidelines of CoP26, **AIM4C** is a joint initiative by US and UAE.
- It seeks to address climate change and global hunger by uniting participants to significantly increase investment in *climate-smart agriculture* and *food systems innovation* over five years (2021 – 2025).

Key Initiatives Announced At The Summit

Food Security	Clean Energy
<ul style="list-style-type: none"> • The UAE will invest \$2 billion USD to develop a series of integrated food parks across India. • These parks will incorporate state-of-the-art <i>climate smart technologies to reduce food waste and spoilage, conserve fresh water, and employ renewable energy sources</i>. • India will provide appropriate land for the project and will facilitate farmers' integration into the food parks. • U.S. and Israeli private sectors will be invited to lend their expertise and offer innovative solutions that contribute to overall sustainability of project. • These investments will help maximize crop yields and, in turn, help tackle food insecurity in South Asia and the Middle East. 	<ul style="list-style-type: none"> • I2U2 Group will advance a hybrid renewable energy project in India's Gujarat State. • The project is consisting of 300 MW of wind and solar capacity complemented by a battery energy storage system. ✓ U.S. Trade & Development Agency funded a feasibility study for \$330 million USD project. • Indian companies are keen to participate in this project and contribute to India's goal of achieving 500 GW of non-fossil fuel capacity by 2030. • Such projects have the potential to make India a global hub for alternate supply chains in the renewable energy sector.

Factors Responsible For New Grouping

1. Abraham Accord

- a. The new grouping was possible only after the resumption of formal diplomatic relations between **Israel and the UAE**, through the Abraham Accord.
- b. Under the Abrahamic accords promoted by the Trump Administration, the **UAE, Bahrain, Sudan and Morocco** set up formal ties with **Israel in 2020**.

2. Tackling Turkey's Regional Dominance

- a. The new Quad can be termed as a result of converging interests between India, UAE, and Israel amidst Turkey's assertive claims for the leadership of the Islamic world.

3. US Pivot to Asia

- a. The summit comes at a time when US is seeking to lessen its footprint in the Middle East as part of its **pivot to East Asia to tackle China's rise**

Benefits for India

I. More Flexibility To India In The Region

- India has always supported peace and stability in West Asia which is considered as India's extended neighbourhood.
- The new "Quad" will give India the flexibility to engage more freely with Israel and India's partners in the Gulf region. This grouping is also a strong manifestation of the changes in West Asian geopolitics.

II. Diplomacy Shifts From Bilateral To Regional Mechanism

- This platform strengthens India's strategic desire to adopt a regional foreign policy strategy towards West Asia, transcending its bilateralism.
- Earlier, there were three pillars to India's West Asia policy:
 - ✓ **Sunni Gulf monarchies**
 - ✓ **Israel**
 - ✓ **Iran**
- However, with Abraham Accord, the gulf between Sunni kingdoms and Israel is being narrowed.
- As a result, India faces fewer challenges to a regionalist approach.

III. Strategic Interests

- While Israel is a trusted defence partner of India, UAE is amongst the top oil exporters to India.
- With India undertaking an overhaul in its defence infrastructure and the critical energy scenario prevailing in the world, this engagement is quite significant

IV. Technological Hubs:

- Each of these countries is a technological hub. Biotechnology is prominent in each of these countries as well.

Conclusion

- India's participation in the West Asian Quad brings Delhi in line with other major powers including Europe, China, and Russia to try and engage all parties in the region.
- However, India should also maintain its strong relations with **Iran** to keep a *check on the Afghan Taliban* and needs a careful balancing act in the Middle East to secure its long-term strategic interests.
- The I2U2 sets the stage for a new and dynamic phase in India's relations with the Middle East.